ARIZONA DEPARTMENT OF TRANSPORTATION

ENGINEERING CONSULTANTS SECTION

STATEMENT OF QUALIFICATIONS PACKAGE

FOR CONTRACT NO. 09-027

MANAGEMENT CONSULTANT FOR STATEWIDE LOCAL GOVERNMENTS ECONOMIC STIMULUS PROGRAM

Multiple Selection

December 2008

STATEMENT OF QUALIFICATIONS PACKAGE
FOR

CONTRACT NO. 09-027
MANAGEMENT CONSULTANT FOR
STATEWIDE LOCAL GOVERNMENTS ECONOMIC STIMULUS PROGRAM

TABLE OF CONTENTS

SECTION I

PUBLIC ADVERTISEMENT

FOR PUBLICATION December 23, 2008 and December 30, 2008
IN THE TRIBUNE NEWSPAPERS.
(Mesa Tribune, Chandler Arizonan & Tempe Daily News)

ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION

PUBLIC NOTICE FOR CONSULTANTS IN PROVIDING
MANAGEMENT CONSULTANT SERVICES
FOR THE STATEWIDE LOCAL GOVERNMENTS ECONOMIC STIMULUS PROGRAM

ECS CONTRACT NO. 09-027
TRACS NO. VARIOUS

Statements Due: January 9, 2009

The ARIZONA DEPARTMENT OF TRANSPORTATION is accepting Statements of Qualifications from firms to provide professional engineering services as Management Consultants for the Statewide local governments economic stimulus Program.

Statements of Qualifications will be received until 4:00 p.m. Arizona Time on the above referenced date, at ADOT Engineering Consultants Section, 205 South 17th Avenue, Room 293E, Mail Drop 616E, Phoenix, Arizona 85007. No Statements will be accepted after the time specified.

Effective December 23, 2008, no further contact is allowed with any ADOT personnel concerning this project except for the Pre-submittal meeting and questions directed to the assigned Contract Specialist. This restriction is in effect until selection has been announced.

A Pre-Submittal Conference has been scheduled by the Project Manager for Wednesday, January 5, 2009 at 1:00 PM in the ADOT Auditorium, 206 South 17th Avenue, Phoenix, Arizona, 85007. You must have an ID for admittance in to the building. All questions to the Project Manager must be addressed at this time. Following the Pre-Submittal meeting, no further contact regarding this project will be allowed with ANY ADOT personnel except for those in Engineering Consultants Section. "Persons with a disability may request a reasonable accommodation such as a sign language interpreter, by contacting Susan Tellez, 602-712-7525. Requests for accommodations must be made 48 hours in advance of the event, to allow time to arrange the accommodation."

For further information contact ADOT Engineering Consultant Section, (602) 712-7525. Statement of Qualification packages for Contract No. 09-027 are available on the ECS web-site:
www.azdot.gov/Highways/ECS

SECTION II

INFORMATION COPY TO CONSULTANTS

ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION

INFORMATION COPY TO CONSULTANTS

MULTIPLE SELECTION

REQUEST FOR STATEMENTS OF QUALIFICATION FOR
CONSULTANTS INTERESTED IN PROVIDING
MANAGEMENT CONSULTANT SERVICES
FOR THE STATEWIDE LOCAL GOVERNMENTS ECONOMIC STIMULUS PROGRAM

ECS CONTRACT NO. 09-027
TRACS NO. VARIOUS

Statements Due: January 9, 2009

Statements of Qualifications expressing interest in the project will be received until 4:00 P.M. (Arizona Time) on the date shown above, at the office of Engineering Consultants Section, 205 South 17th Avenue, Room 293E, Mail Drop 616E, Phoenix, Arizona 85007. NO Statements will be accepted after the time specified.

Statements will be accepted from any firm or corporation who is properly registered with the Arizona Board of Technical Registration and who has a principal or officer responsible for this contract that is properly registered with the Arizona Board of Technical Registration at the time the Statements of Qualifications are due.

The selected consultant(s) will provide professional engineering services as Management Consultants for the Statewide Local Governments Economic Stimulus Program.

The consultant may be required to perform services including, but not limited to: scoping and environmental documents, corridor development of design segments, design development, program and project schedules, cost estimates, mapping, surveys, materials investigation, right-of-way requirements, utility design, construction administration, post-design services coordination and audit.

The selected Consultant may be required to attend a pre-negotiation workshop. The selected Consultant shall bear the cost of their time.

Effective the date of the public advertisement of this contract, no further contact is allowed with any ADOT personnel concerning this project except for the Pre-submittal meeting and questions directed to the assigned Contract Specialist. This restriction is in effect until selection has been announced.

A Pre-Submittal Conference has been scheduled by the Project Manager for Wednesday, January 5, 2009 at 1:00 PM in the ADOT Auditorium, 206 South 17th Avenue, Phoenix, Arizona, 85007. You must have an ID for admittance in to the building. All questions to the Project Manager must be addressed at this time. Following the Pre-Submittal meeting, no further contact regarding this project will be allowed with ANY ADOT personnel except for those in Engineering Consultants Section. "Persons with a disability may request a reasonable accommodation such as a sign language interpreter, by contacting Susan Tellez, 602-712-7525. Requests for accommodations must be made 48 hours in advance of the event, to allow time to arrange the accommodation."

Any questions of an administrative or contractual nature that were not addressed at the Pre-Submittal meeting must be submitted in writing and directed to the attention of Susan Tellez at the address below.

Susan Tellez, Contract Manager
Engineering Consultants Section (ECS)
205 S. 17th Avenue, Room 293E, Mail Drop 616E
Phoenix, AZ 85007
Phone 602-712-7525
FAX 602-712-7424

Questions will be received until 4:00 PM on January 6, 2009. A fax is also acceptable. No further questions will be accepted after the time specified.

All consultants will be notified of the consultant's request for information and the Department's response to the question. Information will be posted on the ECS Website as well as faxed to those firms that have registered for project updates.

Any violation of the above contact restrictions may be grounds for rejection of the consultants SOQ.

The Engineering Consultants Section Statement of Qualifications format for Contract No. 09-027 shall be followed when expressing interest in this project. The Statement of Qualifications package, or information regarding same, may be obtained from the address shown above, telephone (602) 712-7525. Statements of Qualifications not following the correct format will be rejected.

In order to qualify for selection, a firm must have on file with the Department a current "Prequalification Statement" or submit same with the Statement of Qualifications. Prequalification Statement forms may be obtained from the address shown above, telephone (602) 712-7525.

The Department may select one or more firms from among those submitting Statements of Qualification for further consideration. Firms selected for further consideration may participate in an Oral Interview as part of the selection process.

Previous experience in preparing engineering documents will be a factor in the selection.

Within two weeks after receiving notice of selection, the selected consultant and its sub-consultants are required to understand and comply with the Advance Agreement Checklist as detailed in SECTION IX and submit financial documentation to ADOT's Office of Audit and Analysis as detailed in SECTION X of the SOQ Package.

Please be aware that the items outlined above represent the information needed to begin the audit review process. Additional information and supporting documentation may be requested.

Failure to comply with Audit requirements within the established deadlines may be considered failed negotiations.

Questions in regards to ADOT's Audit requirements or related information may be directed to ADOT's Office of Audit and Analysis at 602-712-7491.

All material submitted in accordance with this solicitation becomes the property of the State of Arizona.

Lobbying certification/disclosure certification statement will be required in the introductory letter from those submitting Statements of Qualifications.

The right is reserved by the Department to reject any and all Statements of Qualification.

Professional Liability Insurance will be required.

The Boiler Plates for all Engineering Consultant Section Contracts are not negotiable.

Partnerships (joint-ventures) will not be considered.

Reviewing the successful Proposal(s) would be allowed but copying is not permitted.

Inclusion of work hour and/or plan sheet estimates in the SOQ will not be allowed.

SECTION III

STATEMENT OF QUALIFICATIONS
FORMAT INSTRUCTIONS

ENGINEERING CONSULTANTS SECTION
STATEMENT OF QUALIFICATIONS FORMAT INSTRUCTIONS
CONTRACT NO. 09-027

Provided for your use is the format for submission of a **STATEMENT OF QUALIFICATION**.

1. **(6) COPIES OF THE STATEMENT OF QUALIFICATION ARE REQUIRED BY ADOT**.

2. **There is a TOTAL PAGE LIMIT of (16) pages. The proposal may include clear report covers, covers, dividers, table of contents, tables, figures, maps, etc., but these must fit within the sixteen page limit. A page shall be 8 1/2 X 11 inches, blank, or printed on one side only. Fold out pages are not allowable.**

3. **The SOQ proposal must follow the format outlined below:**

	FORMAT CONTENT	MAXIMUM POINTS	TOTAL NUMBER OF PAGES
	FRONT COVER **(Optional, but if included will count as a page)**		
PART A	INTRODUCTORY LETTER		
PART B	EVALUATION CRITERIA **May include information to support Criteria.**		
	1. Project Understanding & Approach	30	
	2. Project Team	45	
	3. Firms Capability	20	
	4. Location of Work	5	
	5. Oral Interviews (If Applicable)	20	
PART C	CONSULTANT FIRM INFORMATION PAGE		
	BACK COVER **(Optional, but if included will count as a page)**	**TOTAL POINTS**	**TOTAL PAGES**
	TOTAL POINTS	120	16

4. **Any amendments issued on the SOQ and included in the SOQ, as required, will NOT be counted as pages.**

5. **Submissions failing to follow all instructions outlined above will be rejected and the Consultant notified in writing of the reason(s) for rejection.**

ENGINEERING CONSULTANTS SECTION
Statement of Qualifications
Format and Evaluation Criteria
for Contract No. 09-027

The following describes more specifically, the content of each part.

PART A, INTRODUCTORY LETTER

The introductory letter should be addressed to:

Arizona Department of Transportation
Engineering Consultant Section
205 South 17th Avenue
Room 293E, Mail Drop 616E
Phoenix, Arizona 85007

The introductory letter should contain the following items:

- An expression of the firm's interest in being selected for the project.
- A statement that the firm is pre-qualified with ADOT, or that the necessary pre-qualification information is being submitted with the proposal.
- A statement confirming the commitment of the key personnel identified in the submittal to the extent necessary to meet ADOT's quality and schedule expectations.
- Provide name and Professional Engineers registration number of the principal or officer responsible for this contract that is properly registered with the Arizona Board of Technical Registration at the time the Statements of Qualifications are due.
- A summary of key points regarding the firm's qualifications.
- A statement that the Consultant certifies, by signing and submitting this proposal to the best of his or her knowledge and belief, that no Federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned for the purpose of lobbying (Refer to Section V).

PART B, EVALUATION CRITERIA

The information that should be included in the discussion of qualifications is outlined here.

1. Project Understanding and Approach

   a. Discuss generally the tasks involved in this project. Identify any special issues or problems that are likely to be encountered. Demonstrate clearly and concisely your understanding of the technical and institutional elements with which the consultant must deal.

   b. Outline your proposed approach for dealing with the tasks and issues of this project. A graphical depiction may be included with the evaluation criteria.

   c. Explain how your firm will use Partnering in this project. (Relates to Construction Administration only.)

2. Project Team

   Identify your proposed project team and its collective qualifications for this particular project. In particular, discuss the following:

   a. Project Principal. Identify the person (or persons) who (1) will be responsible for ensuring that adequate personnel and other resources are made available for this project; (2) will handle contractual matters, and; (3) will be ultimately responsible for the quality and timeliness of the

consultant's performance. State that person's position and authority within the firm. Discuss previous similar projects for which this person has performed a similar function.

b. Project Manager. State who will actively manage this project. Identify any projects that person will be involved with concurrently and time committed to each project. List recent similar projects for which this person has performed a comparable function. Discuss relevant experience, professional registrations, education and other components of qualifications applicable to this project.

c. Project Engineer(s) and/or Other Key Personnel. Identify other members of the project team including subconsultants that provide special expertise or will perform key tasks. Describe their anticipated roles. Discuss their relevant experience, registration, education and other elements of qualification applicable to this project.

3. Firm Capability

a. Discuss recent relevant experience of the firm. Projects listed should be similar in nature to the current project and to the extent possible involve team members proposed for this project.

b. Discuss quantitatively how this project would impact the current and anticipated work load of the office which will perform this work. If "staffing up" will be necessary, discuss which areas and how that would be accomplished.

c. Describe any special equipment, software or other resources your firm has which will enhance your ability to accomplish this project. If you propose to use CADD, describe the applicable training and experience of your staff and identify any previous projects for which you have used CADD.

d. Describe your internal procedures for developing, monitoring and maintaining project schedules and budgets.

e. Describe your internal quality control procedures.

f. Describe any notable expertise, increase in capacity or other special capabilities of your subconsultants that are critical to your proposal.

g. Describe how your quality program would enhance the development of this project.

h. Describe your internal procedures for providing partnering education and development. (Relates to Construction Administration only.)

4. Location of Work.

Describe where the key elements of this work will be performed by the Prime Consultant and the Subconsultants. ECS will award points based on the following criteria:

Less than 50% of all work done in state	0 points
At least 50% but less than 95% of all work done in state	1 point
At least 95% of all work done in state	3 points
100% of all work by the Prime and Subconsultants must be performed in State. Prime must be project convenient (within 35 miles of principal job site).	5 points

5. Oral Interview

a. The Interviews may be conducted with firms selected for further consideration based on their SOQ. The Consultant's key personnel (maximum of five) shall be present an overview of its plan and approach to the project. Details of its SOQ are to be explained, and the Consultant should be prepared to answer the Selection Team's questions that will be in reference to the Firm's SOQ submittal. Presentation and Answers shall not exceed 90 minutes.

b. The following structure will be used:
   45 minutes Introduction and Presentation by the Consultant Firm
   35 minutes Question Period by Selection Team
   10 minutes Wrap-up by Firm

c. Each Consultants Presentation Team will be limited to a maximum of three boards or charts of a maximum size of 3 feet by 5 feet each. PowerPoint presentations will be allowed.

d. The firm shall not distribute handouts or leave any materials with the Selection Team. The Selection Team members will not accept food or drink from the Consultants.

ENGINEERING CONSULTANTS SECTION
Proposal Evaluation Form

Questions, which the review panel will generally be seeking to answer in their evaluation, are listed here. The maximum points available for each category are indicated, though the relative weighting of items within each category is up to the discretion of the individual reviewers.

1. PROJECT UNDERSTANDING AND APPROACH (Maximum 30 points)

- Does the consultant understand the nature and scope of the project and the major tasks and issues that will need to be addressed?
- Has the consultant correctly identified any special problems that are likely to be encountered?
- Does the consultant appreciate the interrelation and relative importance of the various project issues?
- Has the consultant's understanding of the project been expressed clearly and concisely?
- Has the consultant proposed logical approaches for dealing with the project tasks and issues?
- Does the schedule incorporate all the major tasks and events? Does it reflect the interrelationship of important project elements and events? Is the proposed timing realistic?
- Does the consultant understand its responsibilities for the project?

2. PROJECT TEAM (Maximum 45 points)

- What is the level of ability and experience of the proposed project manager? What is the person's record of accomplishing similar projects in the past in terms of (1) quality of work?
  (2) Meeting schedules, (3) responsiveness to special needs and concerns of the client? Is this individual familiar with specific ADOT standards and procedures?
- Does the person identified as ultimately responsible for the consultant's performance have the authority necessary to commit firm resources, and to act on behalf of the consultant regarding contractual matters and disputes? What is this person's experience and record of performance on past projects of similar type and magnitude? Has this individual been responsive to ADOT and/or other clients in the past?
- Do other key members of the project team (including subconsultants) provide the range and level of expertise necessary to deal with the scope of this project? Are these individuals familiar with specific ADOT standards and procedures? Have they worked together as a team before?
- Specify who will be responsible for construction cost estimating and that persons relative experience on projects similar to the one being submitted on.

3. FIRM CAPABILITY (Maximum 20 points)

- What level of experience relevant to this project does the consultant have? Are the firm's employees with the relevant experience participating in this project? Is the consultant familiar with ADOT standards and procedures? Has the firm shown a particular commitment to this type of work?

3. FIRM CAPABILITY (continued)

- Has the consultant provided quantitative data indicating that qualified personnel will be available for this project? Does the consultant realistically have the ability to add qualified staff if needed for this project or other projects that happen to come on line before this project is completed?

- Will this project benefit from the use of CADD? If so, does the consultant have the type and amount of CADD equipment appropriate for this project? Is the consultant's staff suitably trained and experienced in the use of CADD? Has the consultant successfully used CADD on past ADOT or similar projects?

- Does the firm have other special equipment or software that will be beneficial to this project? Are current staff members familiar with its use? Has it been used successfully before on ADOT or other similar projects?

- Is the consultant's approach for developing and maintaining the project budget and schedule sound? Has the consultant used these procedures successfully on ADOT or similar projects in the past? Are proposed measures to avoid or make up slippage on the schedule realistic?

- Is the consultant's quality control program suitable? Has it been used successfully by the consultant on ADOT or similar projects in the past?

- If one or more subconsultants are critical to the consultant's proposal, do these firms have the technical expertise, available personnel and record of performance appropriate for their anticipated roles?

5. ORAL INTERVIEW (Maximum 20 Points)

- Questions to be presented at the time of the Interview.

F.

STATEMENT OF QUALIFICATIONS/SELECTION
PANEL COMMENT FORM

FIRM NAME_____ #_____ PANEL MEMBER_____

1. PROJECT UNDERSTANDING AND APPROACH

What did you like about the firm's understanding and approach?

_____
_____
_____

What did you dislike about the firm's understanding and approach?

_____
_____
_____

What did you think about the way the firm handled special problems and/or special situations?

_____
_____
_____

What parts of the understanding and approach did you think were well done?

_____
_____
_____

What suggestions would you make to the firm to improve this section for the next time?

_____
_____
_____

SCORE (30 Maximum) _____

F.

PANEL RANKING FORM - Page Two

2. PROJECT TEAM

Team Strengths:

Team Weaknesses:

How are the team member's qualifications geared to this specific project?

SCORE (45 Maximum) _____

3. FIRM'S CAPABILITIES

Firm's strong areas as related to this project:

Firm's weak areas as related to this project:

F.

PANEL RANKING FORM - Page Three

3. FIRM'S CAPABILITIES, CONTINUED

How did the firm fit the subconsultant's qualifications/duties into overall picture?

_____
_____
_____

SCORE (20 Maximum) _____

(SCORES ARE TO BE ENTERED AND TOTALED ON SCORE SHEET)

==========

OTHER:

Any comments on the format and presentation of the SOQ?

_____
_____
_____

Any other comments or suggestions?

_____
_____
_____

ORAL INTERVIEW
PANEL RANKING FORM

FIRM NAME_____ PANEL MEMBER_____

1. How did the consultant team respond to the panel questions? (Were their answers accurate? Lacking?...etc.)

SCORE (10 MAXIMUM) _____

2. What impressed you about the interview? (What did they do well? What could they have done better?)

SCORE (10 MAXIMUM) _____

TOTAL SCORE (20 Maximum) _____

SECTION IV

CONSULTANT FIRM INFORMATION PAGE

PART C - CONSULTANT FIRM INFORMATION PAGE

CONTRACT NO.: _____

CONTACT PERSON: _____

E-MAIL ADDRESS: _____

CONSULTANT FIRM: _____

ADDRESS: _____

_____

_____

CITY, STATE ZIP: _____

TELEPHONE: _____

FAX NUMBER: _____

ADOT CERTIFIED DBE FIRM? _____

AFFIRMATIVE ACTION ON FILE WITH ADOT? _____

SUBCONSULTANT(S)	TYPE OF WORK	ADOT CERTIFIED DBE FIRM

NOTE: The Consultant Firm Information Page must be a separate full page and is included in the total page count. This page is not evaluated by the Selection Panel, but is used by Engineering Consultants Section for administrative purposes.

SECTION V

LOBBYING CERTIFICATION

Lobbying Certification

The Consultant certifies, by signing and submitting this proposal (see statement in "Introductory Letter"), to the best of his or her knowledge and belief, that:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement.

(2) If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. Copies of Form-LLL "Disclosure Form to Report Lobbying', are available at ADOT Engineering Consultants Section, 205 S. 17th Avenue, Mail Drop 616E, Room 293E, Phoenix, AZ 85007.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, and U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The proposer also agrees, by submitting its proposal, that it shall require that the language of this certification be included in all subcontracts and lower tier subcontracts which exceed $100,0000 and that all such subcontracts and lower tier subcontractors shall certify and disclose accordingly.

The Department will keep the Consultants certification on file as part of their original proposals. The Consultant shall keep individual certifications from all subcontractors and lower tier subcontractors on file. Certifications shall be retained for 3 years following completion and acceptance of any given project.

Disclosure forms for the Prime Consultant and or their subcontractors and lower tier subcontractors shall be submitted to the Contract Manager at the date Statements of Qualifications are due, when said subcontracts exceed $100,000. During the performance of the contract the Consultant and any affected subcontractors shall file revised disclosure forms at the end of each calendar year quarter in which events occur that materially affect the accuracy of any previously filed disclosure form. Disclosure forms will be submitted by the Contract Manager to the Federal Highway Administration for further processing.

SECTION VI

ADOT EMPLOYEE POST EMPLOYEE EMPLOYMENT RESTRICTIONS

SUPPLEMENTAL SERVICES RESTRICTIONS

FIFE SYMINGTON
Governor

LARRY S. BONINE
Director

ARIZONA DEPARTMENT OF TRANSPORTATION

INTERMODAL TRANSPORTATION DIVISION
ENGINEERING CONSULTANTS SECTION
205 South 17th Avenue - Room 293E, Mail Drop 616E
Phoenix, Arizona 85007

THOMAS G SCHMITT
State Engineer

March 7, 1996

Engineering Consultants Section

INFORMATION BULLETIN 96-04

TO: CONSULTANTS

FROM: ENGINEERING CONSULTANTS SECTION

SUBJECT: ADOT Employee Post Employment Restrictions

The purpose of this bulletin is to provide guidance to consultants in the employment of current or former ADOT employees to work on contracts administered by the Engineering Consultants Section. The following guidelines and policy are intended to avoid actual or perceived conflicts of interest. The reference to "current ADOT employee" applies to both full time employees and temporary employees.

1. A current ADOT employee cannot be employed by a consultant to work on active ADOT contracts.

2. A current ADOT employee cannot be included in a Statement Of Qualifications proposal for an ADOT consultant contract as an owner, an individual, or as a member of the consultants team. If an employee resigns to comply with this rule their last day of ADOT employment must be prior to the date that the proposals are due.

3. If a current or former ADOT employee is employed by a consultant which has an active ADOT contract for which the employee was a decision maker in the selection process or negotiated/approved billings or contract modifications, the employee is prohibited from working on these contracts (Policy and Implementation Memorandum 92-12).

Arizona Department of Transportation

Intermodal Transportation Division

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Janet Napolitano
Governor

Victor M. Mendez
Director

Debra Brisk
Deputy Director

August 18, 2004

REVISED
INFORMATION BULLETIN NO. 04-05

TO: ADOT Project Managers/Monitors, Resident Engineers
And Consultant Engineering Firms

FROM: Engineering Consultants Section

SUBJECT: CONFLICT OF INTEREST
SUPPLEMENTAL SERVICES RESTRICTIONS

The purpose of this bulletin is to provide guidance to firms supplying supplemental service employees to ADOT under contracts administered by the Engineering Consultants Section (ECS).

The following restrictions are intended to avoid actual or perceived conflicts of interest. The reference to "ADOT contract employee" applies to both full time and part time contract employees.

1. A current ADOT contract employee cannot be included in a Statement of Qualifications proposal for an ADOT consultant contract as a member of the consultant's team. Exceptions would be:

    a. if the contract employee resigns to comply with this rule their last day of ADOT contract employment must be prior to the date that the proposals are due; or

    b. if the employee's contract is in it's third year and within 4 months of the contract completion date; or

    c. if the Department exercises it's option not to extend the existing contract.

2. If a current or former ADOT contract employee is employed by a consultant which has an active ADOT contract for which the contract employee was a decision maker (for example: involved in the final scope preparation, involved in the selection process or negotiated/approved billings or contract modifications), the employee is prohibited from working on these contracts.

As of this date, a copy of this information bulletin will be included in each ECS Statement of Qualifications package.

If a waiver is requested from the above restrictions, a statement must be submitted to ECS describing the nature of their involvement prior to proposal submittal or work assignment. Resolution of potential conflicts of interest will be determined by ECS in conjunction with the applicable Deputy State Engineer.

SECTION VII

SCOPE OF WORK

SCOPE OF WORK

CONTRACT NO.09-27

MANAGEMENT CONSULTANTS
FOR
THE STATEWIDE LOCAL GOVERNMENTS ECONOMIC STIMULUS PROGRAM

INTERMODAL TRANSPORTATION DIVISION
STATEWIDE PROJECT MANAGEMENT

LOCAL GOVERNMENT SECTION

December 2008

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SCOPE OF WORK:

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B. Dictionary of Standardized Work Tasks

C. Section 200 – Local Government Project Development Process

D. Section 500 – Certification Acceptance Program

E. Cost Derivation

F. Payment Report Format

G. Evaluation Schedule

SECTION 100 GENERAL INFORMATION

110 Program Location

The location will be defined in the Congressional Economic Stimulus Package and listed in Council of Governments/Metropolitan Planning Organization (COG/MPO) programs as Federal Aid projects within the various Statewide Local Public Agency (LPA) jurisdictions.

120 Program Description

This program is designed to expedite the delivery of transportation construction projects identified in the Economic Stimulus Program (ESP). The Management Consultant (MC) duties include but not limited to the following:

The MC shall:

A. Update and maintain program cost estimates.

B. Establish LPA construction costs and descriptions

C. Develop and maintain program delivery scheduling

D. Review construction cost estimate

E. Advise on program risk assessments

F. Provide Audit support with the primary focus on the financial closeout of the projects. Other areas may be audited, as necessary.

G. Provide other "full program" tasks

H. Complete, update and maintain scoping and environmental documents as required.

I. Develop each project from scoping through PS&E following the ADOT project development process.

J. Identify and resolve project issues prior to design that would preclude delivery of a construction project in the time allocated defined in the ESP. Such issues will include utility relocations, right-of-way obstacles, environmental/cultural concerns and local government/developer enhancements.

K. Provide special studies, reports and plans that will reduce the design duration.

L. Provide mapping as needed.

M. Develop schedules for each project.

N. Develop construction and construction project sequencing with the intent to clear major utility obstructions prior to advertisement.

O. Report regularly on issues affecting design, construction budgets and schedules with respect to the Master Schedule.

P. Maintain an appropriately staffed local office during the length of the contract. Coordination with ADOT technical groups and outside agencies. These include Local Government Section, Roadway Drainage, Materials/Geotechnical, Environmental/Archaeological, Utilities/Railroad, Traffic,

Right-of-way, Structures/Hydrology, Location/Mapping, Roadside and Construction District. Also coordination with county agencies, local governments, Indian communities and public utilities shall be required. Federal agency coordination shall include the Federal Highway Administration as well as others. Non- technical coordination may involve ADOT Administration, ADOT Finance, MPO/COG staff and transit agencies.

The MC may:

A. Provide project manager(s).

B. Provide supplemental staff to ADOT technical groups for design review and others, as necessary.

C. Prepare utility agreements.

D. Prepare major utility relocation designs.

E. Prepare Joint Project Agreements (when applicable) with the local governments.

F. Provide support for the public involvement process.

G. Provide involvement in daily issues of respective MC project design or construction.

H. Prepare final PS&E documents on their respective MC Projects.

I. Provide Post Design Services on their respective MC Projects.

J. Provide construction administration on stimulus projects not designed by them.

The MC will not:

A. Provide construction administration for projects designed by their team.

130 Program Goals

The purpose of this contract is for the MC to provide ADOT necessary resources and products to insure that construction start dates are in accordance with the goals and objectives of the Economic Stimulus Legislation.

150 Agency Organization

ADOT retains consultants to perform a variety of engineering services. This document defines the responsibilities and scope of services to be performed by the MC. ADOT Local Government Section will administer, manage and designate a Project Manager to work with and provide direction to the MC for the duration of this contract. The MC will also designate a Project Manager to be responsible for the successful and timely design and services of all features described herein.

160 Length of Services

The length of service shall begin with the notice to proceed and will end at the close of the next fiscal year, June 30, 2010. The Department will retain the option to extend the contract on a yearly (365 days) basis. This contract may be renewable on an annual basis for up to three years.

170 Program Schedule

The MC shall develop and maintain a schedule for the pre-design, design, pre-construction and construction elements necessary to meet successful delivery of the program. The MC shall submit a report containing updated project schedules and major project milestones in a format approved by ADOT. The report shall also include an updated master schedule for completion of the ESP with milestone dates for design and construction.

171 Project Schedule

An initial schedule shall be submitted within five (5) calendar days of project assignment. The schedule submitted shall be customized to reflect the exact needs of the project.

172 Progress Meetings

The MC shall manage and conduct regularly scheduled, and as needed progress meeting with the Project Manager and all other designated persons. The MC shall record meeting notes of progress meetings and shall distribute them to the team within five (5) calendar days of the meeting, upon approval by the Project Manager.

180 Responsibility

The MC shall obtain from the LPA, written approval for any change in scope that negatively affects the project schedule or cost.

190 Environmental Documents

The MC shall complete, update and maintain environmental documents for projects as necessary.

SECTION 200 DESIGN REFERENCES

Design references developed and published by ADOT and other agencies and adopted by ADOT for use in the design of this project are listed in the ADOT Project Development Process Manual, ADOT Landscape Design Guidelines, ADOT Erosion and Pollution Control Manual for Highway Design and Construction, and the ADOT Roadway Design Guidelines. The Management Consultant is advised that while possession of all of these documents is not necessary to successfully complete the project, the Consultant is responsible for designing in accordance with the applicable documents and current revisions and supplements thereto, including but not limited to, LPA design standards.

All reports, plans and estimates will be prepared in accordance with the appropriate ADOT Standard Plans and Specifications.

210 MISCELLANEOUS PLANS, REPORTS AND STUDIES (AS APPLICABLE)

A. For Existing Roadways (if the following exist)

1) Record Drawings

2) Project Plans and Cross Sections

3) Geotechnical Reports

B. Environmental Documents

220 AASHTO Publications

ADOT references and publications shall control the work and any necessary supplementation should be provided by appropriate AASHTO, FHWA, and/or LPA references.

SECTION 300 DESIGN CRITERIA

The projects will be designed in English units. Design of the projects will be guided by the design criteria identified in the design standards and guidelines referenced in Section 200.

The MC shall provide the basic design criteria and prepare the Scopes of Work for the design contracts. The MC shall enter appropriate references from Section 200.

301 Supplemental Design Criteria

The design criteria and the Project Design Guidelines may be supplemented by Project Design Memorandums provided by ADOT during the course of the project.

SECTION 400- WORK PERFORMED BY MANAGEMENT CONSULTANT

The Consultant shall be responsible for providing the engineering services required to accomplish the work products identified in the Project Scope of Work. The services may include the tasks of data preparation, data interpretation, and document preparation including scoping documents, reports, contract plans, special provisions and construction estimates, and construction administration. The Consultant shall perform all

work in accordance with the most current policies and procedures, unless otherwise directed.

The Consultant shall review all material pertaining to its scope to gain an understanding and to identify controls, prior agreements, etc. that may affect subsequent development activities. The Consultant shall assemble a list of significant design issues and proposed resolutions. The Consultant shall coordinate through ADOT with the appropriate cities and counties during all phases of work.

401 Design Features

The Consultant shall be responsible for the development of design, resolution of issues, and development of construction plans through PS&E.

403 Scope Development

The Consultant shall be responsible for coordinating all necessary interim pre-design activities for the projects. These activities include processing, and making recommendations for, coordinating with local developers, jurisdictions and utility companies to assure compatibility with ongoing local developments.

404 Project Development

The Consultant shall develop/review the final PS&E for each project assigned. The PS&E shall include design plans, a drainage plan, a utility relocation plan, and a traffic control plan, a construction staging plan and a master design and construction schedule, as applicable. Value engineering techniques shall be employed in the project development process.

410 Surveys and Mapping

The Consultant shall provide base mapping by producing field surveys for location of existing right- of-way, topographic surveys, drainage surveys and utility locations. Any field surveys required shall be suitable for contract documents preparation and meet the technical requirements of ADOT and the State Board of Technical Registration.

415 Materials Design

The Consultant shall prepare the Materials Design Report for each project to establish guidelines and criteria based on sampling and testing. The final Materials Design Report will be developed by the designer. A consultant with local geotechnical experience shall perform Geotechnical work.

416 Geotechnical Investigation

The Consultant shall prepare a preliminary Geotechnical Report for each project. The final Geotechnical Report and Bridge Foundation Report will be developed by the designer. Geotechnical work shall be performed by a consultant with local geotechnical experience. The Preliminary Geotechnical Report shall identify any known or potential hazardous waste sites or other manmade fills in the corridor. A Geotechnical Technical memorandum will be prepared which summarizes the results of all the data and presents recommendations for earthwork factors (shrink and swell); cut and fill slope rates/stability, geologic unit locations (rock blasting, etc.), and suitability for embankment and/or aggregate. The Consultant shall meet with representatives of the Local Government Section and Materials Group to determine the geotechnical investigation requirements for each project.

417 Earthwork

The Consultant shall attempt to achieve an approximate earthwork balance for projects and corridors consistent with good engineering practice based upon the type of material and with consideration given to environmental mitigation measures unless otherwise directed.

419 Pavement Design

The Consultant shall prepare the final Pavement Design for each project.

420 Environmental Studies

The Consultant may be required to develop or update environmental studies as part of this contract The Consultant shall meet with Local Government Section and Environmental Planning Group to determine the environmental studies required for the project.

The consultant shall be responsible for incorporating any mitigation measures which are mentioned in the Final Environmental document into the design of the project. Activities that require soil and/or vegetation disturbance such as Geotechnical investigations, surveys, etc. may not begin until the appropriate environmental clearance (i.e., cultural resources, hazardous materials, or biological evaluations) is issued. The project's environmental footprint shall consider all utility relocation work required for the project. ADOT in coordination with the affected federal, state and local agencies and jurisdictions will issue the required clearance.

422 Noise Analysis Technical Report

Where a noise analysis is determined to be necessary, the Consultant shall provide required technical information on the project to ADOT. The Consultant shall meet with Local Government Section and Environmental Planning Group to determine the noise analysis requirements for project/corridors

423 Archeological Testing and Recovery

Where archaeological testing and recovery is determined to be necessary, the Consultant shall provide required technical information on the project to ADOT. The Consultant shall meet with Local Government Section and Environmental Planning Group to determine archeological testing and recovery requirements for the project.

424 Hazardous Materials Survey

Where hazardous materials survey is determined to be necessary, the Consultant shall provide required technical information on the project to ADOT. The Consultant shall meet with Local Government Section and Environmental Planning Group to determine the hazardous materials surveys requirements for the project.

425 Public Information Meetings and Public Hearings

The Consultant shall provide staff and/or materials to support public involvement for projects, such as public meetings, stakeholder communication and local government coordination as outlined below.

The management consultant will be responsible for technical aspects of the project administration and delivery. A consortium of firms under contract with the ADOT Communication and Community Partnerships Division (CCP) will have responsibility for public involvement and public information tasks associated with the projects. The management consultant will participate in the development of a Public Involvement Plan tailored to the needs of each project, in cooperation with a project team that includes the local government, ADOT project manager, a CCP staff member and the CCP public involvement consortium.

Firms that wish to submit proposals for this contract should not include public involvement subconsultants on their teams and should exclude fees for public involvement tasks from their budgets.

In general, the public involvement consortium will be responsible for:

- Participating in the development and implementation of the Public Involvement Plan, to include: working with the project team to develop a draft Public Involvement Plan, preparing the final Public Involvement Plan approved by the project team and completing the public involvement tasks outlined in the plan.
- Participating as a member of the project team in developing all materials used in outreach activities, to include but not be limited to: public meetings, forums, stakeholder meetings and construction public information.
- Producing materials for outreach activities. Draft materials will be submitted to the ADOT project manager and the local contact for review and approval a minimum of 15 days prior to each public meeting.
- Schedule and take minutes of public meetings.
- Contracting for meeting locations.
- Developing meeting notices. Draft materials will be submitted to the ADOT project manager and the local project manager for review and approval a minimum seven days prior to publication deadlines.
- Developing and placing newspaper ads, if needed. Draft materials will be submitted to the ADOT project manager and the local contact for review and approval a minimum of seven days prior to publication deadlines.
- Documenting the outreach process in a *Public Involvement Summary Report* following each round of public involvement. The report will include any advertisements and press releases distributed prior to the meetings, mailing lists, handouts, comments received at each meeting, and associated responses to each comment.

430 Utilities and Railroads

The Consultant shall obtain available utility mapping and identify utilities within the general project limits. The Consultant shall identify potential utility conflicts, suggested relocations, implementation timing and costs and incorporate these into a relocation plan.

The Consultant shall conduct coordination meetings, as necessary, with utility companies and agencies.

The Consultant shall also coordinate with and inform the utility companies of the permits and licenses required by ADOT and other agencies necessary to complete the utility relocations.

Potholing may be added to this contract at a later date by contract modification.

440 Roadway Design

The Consultant shall prepare plans for all roadway elements and improvements, as well as detour construction and removal.

The result of the design shall include but not necessarily be limited to:

Typical roadway sections

Plans and profiles
Roadway cross sections

445 Bridge Design

The Consultant shall prepare plans for all bridge elements and improvements, as well as detour construction and removal, as necessary in accordance with the requirements of Section 445 of the Dictionary of Standardized Work Tasks.

446 Bridge Structure Selection Report

The Consultant shall submit an Initial Bridge Selection Report for new bridges and/or for renovation of existing bridges. The designer will be responsible for the Final Bridge Selection Report.

447 Aesthetics

The Consultant shall formulate aesthetic treatment guidelines of structural element options in terms of cost effectiveness and corridor continuity, and make recommendations for the following:

Bridge abutment and columns
Retaining walls
Noise walls
Barriers
Pedestrian overpasses
Slope paving

450 Drainage Design

The Consultant shall prepare a comprehensive drainage plan. The plan shall include final sizing and location of detention basins, offsite collection culverts, channels and other major drainage structures as well as tentative onsite collection system layout, sizing.

455 Landscape Architectural Design and Erosion Control

The Consultant shall prepare erosion control plans and SWPPP in accordance with ADOT specifications. Landscape plans shall be prepared when applicable.

460 Traffic Engineering Design

The Consultant shall develop signing, marking, signal and lighting designs. The Consultant shall also develop a plan for traffic control for construction.

470 Right Of Way

The Consultant may be requested to develop and prepare R/W plans.

480 Cost Estimates

The Consultant shall identify options to maintain the project within budget, including revising criteria, or phasing changes.

SECTION 600 POST-DESIGN SERVICES

The Consultant shall perform post-design services as listed in Section 600 of the Dictionary of Standardized Work Tasks.

SECTION 700 MATERIAL FURNISHED BY ADOT

750 Environmental Studies

The Consultant will obtain the environmental clearance with assistance from ADOT.

SECTION 800 CONSTRUCTION ADMINISTRATION

The Consultant shall perform services under this section according to Appendix A: Full Service Construction Administration.

SECTION 1000 CONTRACT ADMINISTRATION

The Consultant shall perform services under this section according to Appendix B: Dictionary Of Standardized Work Tasks.

APPENDIX A

FULL SERVICE CONSTRUCTION ADMINISTRATION

SCOPE OF WORK

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APPENDIX A-4
Certifications Matrix's

SCOPE OF WORK

The purpose of this contract is to provide consultant administrative services on a construction project for the Arizona Department of Transportation (ADOT) and to serve as an extension of the ADOT staff.

The CONSULTANT shall provide an on-site field office to include all office supplies, utilities, and communications for the life of the construction project or until the ADOT notifies the consultant otherwise.

The CONSULTANT will be given an advanced notice to proceed (if necessary) to allow for coordination meetings prior to actual commencement of work.

The construction administration effort on this project will be important and extensive.

DEFINITIONS

ADOT	The Arizona Department of Transportation
PROJECT MONITOR-IN CHARGE a.k.a. PROJECT MONITOR	The official ADOT representative on the project who will be available throughout all phases of the construction project(s) assigned under this agreement and who shall assist the consultant in the administration of the contract.
CONSULTANT CONTRACT ADMINISTRATOR a.k.a. CCA	Contracted consultant administrative service that shall represent the ADOT and administer the construction contract in accordance with the Scope of Work, Contract Plans and Special Provisions, and the ADOT standards and specifications and manuals.
CONSULTANT STAFF	Qualified employees of the Consultant who shall serve as an extension to the ADOT in the performance of construction management and construction inspection, testing, office procedures, safety, partnering, documentation and all other duties required to successfully manage the projects under this contract.

RESPONSIBILITIES

The CONSULTANT, as contract administrator, shall have the sole responsibility for communicating or relaying information and/or requests to the Contractor. Problems or questions concerning the contract or the Contractor shall be addressed to, and by, the CONSULTANT.

The CONSULTANT shall provide contract staff with cellular telephones and provide the ADOT with a current list of names and telephone numbers for essential personnel.

The CONSULTANT shall provide vehicular transportation for inspection staff working on this project.

The CONSULTANT for this contract shall be solely responsible for notifying their stakeholders of meetings:

- The Pre-Construction Conference as referenced in SECTION 108.03 of the ADOT 2000 Standard Specifications for Road and Bridge Construction and the current ADOT Construction Manual.

- **Partnering Workshop as referenced in the Partnering "Fine Tuned Processes", September 2003.**

The CONSULTANT providing construction administration services, and the Contractor performing construction on the assigned project, cannot have the same parent company or any corporate association. Both CONSULTANT and Contractor are required to adhere and comply with Labor compliance requirements and both shall allow the ADOT Field Reports section to monitor the contract.

To accomplish this, the CONSULTANT shall immediately provide the Field Reports section with the following information:

- Name of Resident Engineer
- Office Manager
- His/her E mail address(If applicable)
- Field office address
- Field office phone number

PARTNERING

The CONSULTANT shall have a thorough working knowledge and prior experience in the Partnering method of construction administration. The CONSULTANT and the staff shall maintain a good working relationship with the contractor throughout the length of the construction project. **Refer to SECTION 104.01 (a) and (b) of the Standard Specifications for Road and Bridge Construction, Edition 2008.**

The ADOT Partnering Section (602-712-7120) can provide the CONSULTANT with policies and references to use as a guide to PARTNERING. The following publications are excellent sources to foster and facilitate good partnering procedures.

- **"Partnering, Fine Tuned Processes", dated September 2000; a memo titled,**

- **"Documentation of Public Purpose Associated with Partnering Workshops and the Simultaneous Provision of Food and Beverages to the Participants" dated December 30, 2003.**
- **"ITD Policy and Implementation Memorandum SUP 03-2 – Partnering Policy" dated December 30, 2003.**

STAFFING REQUIREMENTS

The CONSULTANT shall provide a sufficient number of personnel to meet the requirements of this contract and to adjust approved changes made by the Contractor or by the ADOT to the Critical Path Method (C.M.P.) schedule.

CONSULTANT personnel assigned to the project shall have prior highway and construction experience and shall be knowledgeable in all areas of work covered by the Scope of Work in this contract and the construction project's Special Provisions and Highway Plans.

The Consultant's staff shall be available for review of office documentation procedures and for computer software training. The ADOT Consultant Contract Administration Office (602-712-7254) and Field Reports Office (602-712-7301) located at 206 South 17th Avenue, Phoenix, Arizona can provide training in office procedures.

The ADOT Information Technology Group (ITG) personnel are responsible for providing the Consultant staff with computer software training and support. Engineering Consultant Services (ECS) generates the Site License used to access the ADOT construction software as they process the CONSULTANT contract. The Consultant Contract Administrator is responsible for providing and monitoring paperwork that allows the CONSULTANT staff to access the ADOT FAST system. The Consultant can make inquiries about this process by calling the ITG Support Desk at 602-712-7249.

Employees of the CONSULTANT or the SUB-CONSULTANT'S who do not perform their work in a safe and knowledgeable manner, or who are intemperate or disorderly, shall be removed immediately from the project at the written request of the PROJECT MONITOR. Behavior of this type may restrict re-employment of the employee on this project or future State projects unless written approval is submitted by the ADOT.

ADOT has defined some positions under this consultant administration contract as "KEY PERSONNEL*". New personnel positions may be later identified, approved by ADOT and added to the contract. No changes shall be made without the written approval of the PROJECT MANAGER and CCA. Project staffing requirements shall be based upon the negotiated hours in the contract.

Consultant Classifications are as follows:

- Senior Resident Engineer (T3)
- Resident Engineer (T2)
- Registered Landscape Architect (T2)
- Registered Land Surveyor (T2)
- Archeologist
- Tech V (S9)
- Tech IV (S7)
- Tech III (S6)
- Tech II (S5)

- Tech I (S4)
- Engineer Worker (S1)

Major requirements included within the Classification guidelines are – See Below:

MAJOR STAFFING REQUIREMENTS INCLUDED WITHIN THE CLASSIFICATION GUIDELINES ARE:

- Arizona Technical Institute (ATI – Field and Lab) Certifications for Construction Techs. I, II, III, IV, and Tech V classifications as required per job tasks.
- American Concrete Institute (ACI – Field and Lab) Certifications for Construction Techs. I, II, III, IV, and Tech V classifications as required per job tasks.
- National Society of Professional Surveyors (NSPS – Survey) Certifications for Survey Techs. I, II, III, IV and V classifications as required per job tasks.
- International Municipal Signal Association (IMSA – Electrical) Certifications for Construction Techs. I, II, III, IV, and Tech V classifications as required per job tasks.
- Consultant Personnel (Supervisor – Field, Lab) must meet the requirements of Table - 2. (See Appendix 'A-2')
- Consultant Personnel (Technician – Field, Lab) must meet the requirement of Table – 3. (See Appendix A-3')
- Consultant and his technicians must posses a sound knowledge and experience of the Partnering Concept utilized presently in ADOT's Construction Program.
- See Matrix's (Appendix 'A-4') as a guide on requirements, experience and training to supplemental construction staff.
- College or university engineering course work.
- Certification for use of nuclear equipment to include successful completion of the nuclear gauging equipment manufacturer's radiation safety and equipment operation course, the ADOT radiation safety course, or other courses with similar content and requirements that have been approved by the Arizona Radiation Regulatory Agency

The following positions have been identified as KEY POSITIONS in this contract:

- RESIDENT ENGINEER
- PROJECT SUPERVISOR
- FIELD OFFICE SUPERVISOR
- MATERIALS LABORATORY SUPERVISOR
- TRAFFIC CONTROL SPECIALIST

Note: All personnel as defined above and as identified in the statement of qualifications need to be approved for the specific task they are listed to perform and shall not be replaced on the project without the PROJECT MONITOR'S and CCA's written approval.

In compliance with safety and emergency situations of this project please provide the PROJECT MONITOR telephone number(s) or other means of communication to contact the Resident Engineer and Traffic Control Specialist to provide immediate attention to traffic situations that may occur after hours, weekends and holidays.

RESIDENT ENGINEER (T2)

The RESIDENT ENGINEER proposed for work under this contract shall be registered as a Civil Engineer in the State of Arizona or an approved field.

Depending on project need the RESIDENT ENGINEER and other appropriate key personnel identified by the PROJECT MONITOR shall be available to begin work within one week of the execution of this Agreement or as otherwise authorized by Consultant Contracts.

PROJECT SUPERVISOR (S9)

The PROJECT SUPERVISOR proposed for work under this contract shall be highly knowledgeable in analyzing, evaluating, researching, reading and interpreting a variety of technical engineering data that includes highway construction plans, field survey data and quality control documentation. This supervisor must have a minimum of 10 years current experience on similar work and plans. It is essential that the Project Supervisor possess skills in oral and written communications to fully perform this task. Communications will include interpersonal relations as applied to contacts with contractors, ADOT staff, and representatives of other governmental jurisdictions and in building partnerships. The Project Supervisor must also possess skills in organizing and prioritizing work assignments.

FIELD OFFICE MANAGER (S7)

The FIELD OFFICE MANAGER proposed for work under this contract must be knowledgeable in computer usage (Excel, Word, Outlook) and highly experienced in analyzing and evaluating a wide variety of highly technical engineering data, including construction plans, field survey, and quality control documentation. Knowledge required should include skills in interpreting and implementing the ADOT 2008 Standard Specifications for Road and Bridge Construction, ADOT policies, procedures, pay item documentation, Force Account documentation, certified payrolls , progress reporting and regulations, CPE, PEP; also skills in interpersonal relations, as applied to contacts with contractors, ADOT staff and representatives of other governmental jurisdictions. Minimum of 6 years current experience required **OR** possess a degree in Business / Project Administration or Education with an emphasis in Math or Science and completion of all training classes listed above.

MATERIALS LABORATORY SUPERVISOR (S7)

The MATERIALS LABORATORY SUPERVISOR proposed for work under these contract qualifications shall meet the requirements of (Appendix A-1, TABLE 2) of this document. Responsibilities shall include verification of all materials incorporated into the project such as certifications, testing, documentation (logging) and reporting of test results in a timely manner.

The CONSULTANT'S personnel shall be ATI and ACI certified and have on-site material sampling and testing experience. Technician qualifications will be in accordance with the requirements of (Appendix A-1, TABLE 3). Proof of technician certification shall be made available to the ADOT upon request. The CONSULTANT'S staff shall be experienced and proficient in ADOT"S software applications, such as FAST. This includes PEN, SATS, CPE, Contract Card and Price Adjustment.

Documentation forms for testing will be provided by (ADOT).

TRAFFIC CONTROL SPECIALIST (TCS) (S7)

The TRAFFIC CONTROL SPECIALIST (TCS) proposed for work under this contract shall have extensive knowledge and background in work zone traffic control procedures. The TCS shall be available and subject to on-call status 24 hours per day, seven (7) days a week to perform daytime, nighttime and weekend inspections and document information in accordance with (ADOT) requirements. Once the identity of the TRAFFIC CONTROL SPECIALIST(s) has been approved by the ADOT, no change shall be allowed unless a written request for personnel change is submitted and approved by the Project Monitor five (5) days prior to actual implementation.

The ADOT Traffic Control Manual for Highway Construction and Maintenance and the ADOT Standard Specifications for Road and Bridge Construction, 2008 Edition shall be used as reference and guidance.

The Traffic Control Specialist shall monitor the CONTRACTOR'S maintenance and protection of traffic to ensure compliance to the requirements of the contract.

The CONSULTANT shall provide a TRAFFIC CONTROL SPECIALIST other than the RESIDENT ENGINEER or as otherwise authorized by the PROJECT MONITOR.

Note: *CONSULTANT shall not make changes to KEY PERSONNEL or to the Statement of Qualification without the written approval of the PROJECT MANAGER.

MATERIALS TESTING

The Consultant's equipment shall include, but not necessarily be limited to, vehicles for transporting personnel and inspection/testing equipment and any other required devices used to determine the workmanship of the contractor and the quality and acceptability of roadway materials to be incorporated in the project construction.

Asphalt concrete mix designs will be in accordance with Section 406 through Section 417 of the ADOT 2008 Standard Specifications for Road and Bridge Construction. The CONTRACTOR will submit concrete mix designs, including any admixtures through the CONSULTANT to the PROJECT MONITOR for their review. The Regional Materials Engineer will provide final approval for concrete mix design and he must approve all field adjustments required on concrete mix designs.

NOTE: THE CONSULTANT OR SUB-CONSULTANT CANNOT PROVIDE ANY MIX DESIGN SERVICES FOR THE CONTRACTOR.

Sampling frequency shall follow the terms of the ADOT Sampling Guide unless otherwise approved by the PROJECT MONITOR. The frequency of split samples for correlation testing will

be determined by PROJECT MONITOR, but will generally occur at the approximate rate of one in five.

The split sample will be delivered to the PROJECT MONITOR, or designated location for testing and evaluation, within two (2) days from the sampling date unless otherwise approved.

A weekly up-to-date materials log on all test results will be maintained in the office utilizing the computer software provided by ADOT. Upon completion of construction of the project, the CONSULTANT shall submit the following signed certification:

> **This is to certify that:**
> **The results of the tests on acceptance samples indicate that the materials incorporated in the construction work and the construction operations controlled by sampling and testing were in reasonably close conformity with the approved plans and specifications; such results compare favorably with the results of the independent assurance sampling and testing.**

The CONSULTANT, under direction of the PROJECT MONITOR, may be requested to collect random materials samples as deemed necessary. Independent Assurance sampling and testing per ADOT'S materials procedures shall be performed by ADOT personnel.

INSPECTION

The CONSULTANT and Consultant's staff under this contract are responsible for inspecting all of the work performed by the CONTRACTOR on all of the contract's bid items to ensure compliance with ADOT specifications.

NOTE: THE CONSULTANT WILL NOT PERMITTED TO INCORPORATE OR CHANGE THE INSPECTION TEAM PERSONNEL ASSIGN TO THE PROJECT WITHOUT **PRIOR WRITTEN APPROVAL** OF THE PROJECT MONITOR AND CONSULTANT CONTRACT ADMINISTRATOR. INSPECTOR'S WORK HOURS SHOULD PARALLEL THE CONTRACTOR'S WORK SCHEDULE.

One hundred percent (100%) of the CONSULTANT'S inspection team shall meet one the following requirements:

a) Engineering-In-Training certified by the State of Arizona with two years of highway experience acceptable to the Department.

b) An individual with three years of highway experience acceptable to the Department and with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

c) Highway Construction technician certified by ACI and ATI.

d) Resident Engineer's must possess an Arizona PE license.

e) Office personnel must meet the criteria listed in Appendix C.

OFFICE DOCUMENTATION

GENERAL

The CONSULTANT shall provide and setup an office with a personnel computer capable of operating ADOT'S office and materials software (Contact Information Technology Group (I.T.G.) for Consultant Minimum PC Specifications.) and all other office equipment and supplies unless stated otherwise. Required office forms will be provided by (ADOT). Office setup to include all utilities, such as electricity, water and all other hook ups required performing administrative requirements of this contract.

The CONSULTANT shall maintain separate and distinct records, files, all necessary inspection diaries, log books, survey staking records, material tests results and all required documentation to justify all pay estimates; according to (ADOT) standards. Office documentation shall be input into ADOT's PEN program on a ADOT issued or leased personal computer for documentation and filing system services that meets the provisions established by ITG for this function. The computer shall be capable of handling ADOT'S computerized logging system software for documentation and reporting of project quantities. ADOT will provide the required office software to the CONSULTANT to properly administer the contract according to ADOT'S procedures. The CONSULTANT shall provide the hardware, operating systems, support and training to their project staff and sub-contractor(s) in the use of such hardware and software. ADOT'S Information Technology Group (I.T.G.) will be responsible for the installation of this software, and connections to the ADOT network.

Documentation will be done according to ADOT standards. ADOT standards include, but are not limited to the current

- ADOT Standard Specifications for Road and Bridge Construction
- ADOT Construction Manual
- ADOT Materials Testing Manual
- ADOT Materials Policy and Procedure Directives Manual
- ADOT Policies and Procedures Manual
- ADOT Office Engineering Manual
- ADOT Traffic Control Manual
- ADOT Construction Progress Estimate Program (CPE)
- ADOT Construction Management Program (CMP) Manual
- ADOT Partnering Evaluation Program (PEP)
- ADOT Supplemental Agreement Tracking System (SATS)
- MUTCD Chapter (6) and supplement and any other ADOT manuals referenced in the Project Contract Special Provisions.

One set of each of these pertinent documents will be provided by Engineering Records section upon request and must be returned to the respective Org. at the completion of this contract. Engineering Records is located at 207 S. 17th Avenue.

The CONSULTANT shall compile and submit in accordance with the current Construction Manual:

- Reports
- Records
- Employee Interview Verification

- Daily diary
- As-built plans
- Photographs
- Video recordings of various phases of construction and all other data required for proper completion of records of the project.
- **Complete finals within 45 days after acceptance.**
- Review certified payrolls on a monthly basis for acceptance.

The Consultant shall also adhere to the CPM schedule as well as adhere to materials procedures. Penalties will be assessed accordingly if payroll documentation is not submitted in the time allotted, please see Section 109.06 (C). Material penalties will also be assessed per Section 106.04 (C)(6).

The Consultant and his staff will retain a **DAILY DIARY** utilizing a computer either provided by ADOT or the firm describing the progress of the work on the project that will identify specific problems encountered and solutions. Each member of the CONSULTANT'S staff in accordance with the current Construction Manual shall keep this recorded pertinent information relative to the execution of the project utilizing the PEN / FAST system.

The CONSULTANT is responsible for all measurements and all other pertinent information necessary to generate monthly and final estimates, reports and as-built plans. ADOT will furnish a large set and two (2) half size sets of plans for each project to be used for as-built plans. As-built plans are to be developed containing all information of changes or additions to the original design as construction phases are completed. Upon completion of the project As-built plans are to be presented to ADOT.

WEEKLY MEETINGS

The CONSULTANT'S resident engineer shall conduct weekly meetings with the CONTRACTOR during the course of construction, as outlined in SECTION 108-04 of the 2000 Standard Specification for Road and Bridge Construction. These meetings shall be recorded and produced in a written summary with copies of minutes provided to all participants in attendance.

Partnering and relationship issues will be discussed at the weekly meetings (see example meetings format in the "Partnering, Fine Tuned Process" document dated September 2003). One meeting a month shall include a discussion of the Partnering Evaluation Process (PEP). Action plans to improve the partnering process shall be developed at the monthly meeting.

INVOICES

Reports along with monthly billing backup documentation will be entered into ADOT's automated invoicing system. This will then be sent to ADOT's Consultant Contract Administrator for review and processing. ADOT's Consultant Contract Administrator will return incomplete billing invoices.

PAY ESTIMATES

The CONSULTANT'S office staff will prepare intermediate and monthly pay estimates using, the (CPE) Microcomputer program (CPE Power Builder Version) provided by ADOT. This program is a Window based network SQL server based program. The monthly estimates will be prepared in accordance with instructions outlined in the current Construction Manual.

The CONSULTANT must provide, in writing a request for copy of the approved microcomputer program for the preparation of progress payment estimate and other construction documentation software. Programs are provided from the Technical Information Resource (ITG) section. Direction on procedures for site license and PC Specifications can be obtained through ADOT ITG Support Desk at 602-712-7249 or Representative Jill Harvey at 602-712-3102 (See Note 1 authorization policy).

PROGRESS REPORTS

The CONSULTANT will submit narrative progress reports to the PROJECT MONITOR on a weekly and monthly basis. The weekly reports shall be delivered by Monday afternoon following the week covered in the report, and they shall contain considerable detail about activities on the project. The monthly reports shall be delivered by the fifth of each month, and shall consist of a brief recap of the project progress for the previous month.

Partnering evaluations shall be conducted in accordance with the fine-tuned Partnering Processes dated September 30, 2003 and shall be transmitted to the District and Phoenix partnering offices.

MANAGEMENT SCHEDULES

The CONSULTANT will be required to submit a management schedule each week in Manpower based on the Contractor's schedule. This schedule will show the CONSULTANT'S manpower plan on a weekly basis to parallel to the CONTRACTOR'S operation. The manpower schedule shall be updated by Friday at 10:00 am each week (web application) to the PROJECT MONITOR for his review and approval. The schedule will indicate the type and number of personnel anticipated to cover the CONTRACTOR'S operation for the up-coming week.

A Staffing Plan shall be prepared in accordance with CONSTRUCTION ENGINEERING MANAGEMENT PROGRAM (CMP) policies and procedures manual. Staffing Plan shall be prepared as outlined in Chapter 3 of the (CMP)

Procedures Manual, and submitted to the PROJECT MONITOR prior to start of work. Staffing Plan should be based on the CONTRACTOR'S original construction progress schedule presented at the pre-construction conference.

Updates to the CONSULTANT'S computer-staffing plan will be in accordance with Chapter 3 of the (CMP) Manual. ADOT will provide the computer-staffing plan software developed for use on a personnel computer using Microsoft Windows operating system upon a request in writing for copies of the (CMP) software to (ITG) (See note 1 authorization policy).

The Consultant must prepare a Monthly Summary and CEMS (Construction Engineering Manpower System) Report along with monthly billing backup documentation for them to enter into ADOT's automated invoicing system. This will then be sent to ADOT's Consultant Contract Administrator for review and processing. ADOT's Consultant Contract Administrator will return incomplete billing invoices.

The Consultant must utilize ADOT's transmittal log for tracking purposes of all correspondence, including RFI's, certifications, etc.

Documentation will be in accordance with ADOT standards. ADOT standards include, but are not limited to the current

- ADOT Construction Manual,
- ADOT 2008 Standard Specifications for Road and Bridge Construction
- ADOT Materials Testing Manual
- ADOT Materials Policy and Procedure Directives Manual
- MUTCD Chapter (6) and supplement and any other ADOT manuals referenced in the Project Contract Special Provisions.

SUPPLEMENTAL AGREEMENTS

The CONSULTANT'S Resident Engineer will initiate and create all CONTRACTOR'S Letter of Agreements, Change Orders and Force Account Work Requests through the use of SATS, including written justification and **cost analysis** for same. These are to be delivered to the PROJECT MONITOR for review and approval. After approval the CONSULTANT will obtain the Contractor's signature and return the documents to the PROJECT MONITOR for final execution. The CONSULTANT with the approval of the PROJECT MONITOR, may initiate Letter of Agreements, Change Orders and Force Accounts in accordance with Proposed Changes in Authority Levels Construction Supplemental Agreements, "Minor Alteration" Changes Order specification and Alterations of Contract.

The PROJECT MONITOR'S responsibility is being available, upon request, to assist the CONSULTANT in the preparation of Change Orders, Force Accounts, Monthly Estimates, etc. This assistance will be considered an informational service only to explain the flow of paperwork and the continuity of the work. The CONSULTANT will be expected to follow-up on the paperwork flow in an expeditious manner to avoid any delays in timely submittals of documentation (i.e. mix design submittal, claim specifications, etc.), correspondence, conducting of meetings, and transmittal of responses to the CONTRACTOR to meet time constraints of the project.
If, in the opinion of the PROJECT MONITOR, the administrative requirements of this contract are not being met, written notification will be given to the CONSULTANT outlining these concerns and the necessary guidelines required to stay on schedule.

After written notification is presented and the administrative requirements are still not being met, retention action will be taken as per section 3.03, number 6 of the contract until requirements have been returned to acceptable practice.

CLAIMS

ADOT will evaluate each construction claim on an individual basis and will determine the extent of the CONSULTANT'S participation.

CONSTRUCTION COMPLETION ESTIMATES

When seventy-five percent (75%) of the contract time has been used on the project, the CONSULTANT shall advise the PROJECT MONITOR if, in his opinion, he can complete the project within the original time frame. If the CONSULTANT feels he cannot, a detailed analysis outlining the time needed to complete the project must be submitted along with a request for an extension of time. This must be completed and received by the PROJECT MONITOR prior to eighty percent (80%) of the contract time being used; **all costs incurred by the CONSULTANT thereafter shall not be recoverable.**

If unusual delays are anticipated, notification should be given to Field Reports Section immediately according to Section 1316.03 of the ADOT Construction Manual. **If after 60 days of the final acceptance of the project and Field Reports Section has not received the final project documentation; all costs incurred by the CONSULTANT thereafter shall not be recoverable. In addition, if there is to be rework done by Field Reports, there will be back charges to the CONSULTANT at the rate ADOT was billed.**

CERTIFICATION OF SUBSTANTIAL CONFORMANCE

At the end of construction of each project assignment, the CONSULTANT shall submit a signed certification stating that all work was done in substantial conformance with the project plans and specifications: and that all payments were made for work performed at the bid prices agreed to in the construction contract. At this time the CONSULTANT shall submit the completed as-built plans for the project to the PROJECT MONITOR. Each set of as-built plans must comply with the requirements of each contract and must possess the signature of approval of the PROJECT MONITOR.

PROJECT CLOSE OUT PARTNERING WORKSHOP AND EVALUATION

A project closeout evaluation and workshop for the project if required shall be performed in accordance with the ITD Policy and Implementation Memorandum SUP 03-2; Partnering Policy dated December 30, 2003.

PERFORMANCE REVIEW

Each task will be evaluated by the following groups and a satisfactory score will be at eighty percent or above. Failure to maintain satisfactory service may be grounds for termination.

- CCA (Billing)
- Project Monitor
- Field Reports
- Construction Operations
- Audit

APPENDIX A-1
ADOT SYSTEM FOR THE EVALUATION OF TESTING LABORATORIES

January 6, 2004

SCOPE OF SYSTEM

The Arizona Department of Transportation (ADOT) System for the Evaluation of Testing Laboratories has been implemented to formally approve materials testing laboratories to perform sampling and testing activities for ADOT. On all projects advertised/awarded by ADOT, the materials testing laboratory must satisfy the qualification criteria as specified herein and be approved by ADOT Materials Group prior to performing materials sampling and testing activities for the Department. For Certification Acceptance projects that are advertised/awarded by a local government agency, AASHTO accreditation in applicable test methods is sufficient. Those laboratories submitting asphaltic concrete mix designs must also meet the requirements of *Materials Group Policy and Procedure Directive No. 96-6, "Asphaltic Concrete Mix Design Proposals and Submittals"*, and be approved by the Materials Group Bituminous Engineer. Approved laboratories will be periodically evaluated to verify compliance with the system. The system is administered by the ADOT Materials Group Quality Assurance Section, under authority delegated by the State Engineer. The procedure will apply to any laboratory performing sampling and testing activities for the Department, directly or as a subconsultant.

The *ADOT System for the Evaluation of Testing Laboratories* is revised periodically. The current version can be viewed on the Materials Quality Assurance Section website (http://www.dot.state.az.us/about/materials/qa/index.htm). The *ADOT System for the Evaluation of Testing Laboratories* is accessed as a selection item in either the Laboratory Inspection Program or the Proficiency Sample Program on the Materials Quality Assurance Section website.

ADOT SYSTEM CRITERIA

The ADOT system acknowledges the mechanism, established by the *AASHTO Accreditation Program (AAP)*, to recognize the competency of a laboratory to perform specific tests on construction materials. ADOT approved laboratories must obtain and maintain AASHTO accreditation for any AASHTO or ASTM test method specified or referenced by a contract document. In addition, AASHTO accreditation is required for any AASHTO or ASTM test method which an Arizona Test Method modifies.

A copy of AASHTO accreditation certificates must be transmitted to the ADOT Materials Group Quality Assurance Engineer immediately upon receipt by an ADOT approved testing laboratory.

The following requirements are in addition to Section 3, "AASHTO Accreditation Program Criteria", of the *AASHTO Accreditation Program Procedures Manual*:

3.1 Quality System Criteria is modified to add the following:

The laboratory shall have and maintain the current ADOT Materials Testing Manual. The manual shall be readily accessible to all laboratory personnel.

3.2 On-Site Inspection and Quality System Evaluation Criteria is modified to add the following:

Any laboratory performing materials sampling and testing in Arizona, or within 50 miles of its borders, for ADOT projects shall be open for inspection by Arizona Department of Transportation personnel at any time. ADOT Materials Group Quality Assurance Section shall regularly schedule and conduct periodic on-site equipment and procedural inspections at all approved permanently based laboratories. The laboratory shall demonstrate the capability to perform tests according to the current ADOT Materials Testing Manual for those testing services offered under the scope of this system.

Approval will be given for those AASHTO/ASTM test methods which the laboratory has obtained AASHTO accreditation and which are successfully demonstrated during the ADOT inspection. Approval will be given for those Arizona Test Methods which modify AASHTO/ASTM methods, if the laboratory has AASHTO accreditation for the AASHTO/ASTM methods, and the Arizona Test Methods are successfully demonstrated during the ADOT inspection. Approval will also be given for unique Arizona Test Methods that are successfully demonstrated during the inspection.

A written response to any deficiencies noted during ADOT inspections shall be submitted to the ADOT Materials Group Quality Assurance Engineer within 30 days of notification. Failure to respond to noted deficiencies within the 30 day limit will be grounds for revocation of ADOT approval.

Laboratory inspections performed by ADOT Materials Group Quality Assurance Section will be conducted according to Table 1.

To perform acceptance or quality control sampling and testing on a project, a lab facility must be located within 50 miles of the project site. In addition, the lab must be completely equipped for all phases of project-related sampling and testing, as required by the contract specifications.

At least 10 days prior to any phase of construction requiring materials acceptance sampling and testing by the laboratory, the Resident Engineer shall notify the ADOT Materials Group Quality Assurance Engineer in writing to request an inspection of a portable or satellite laboratory. Portable or satellite laboratories contracted to do materials acceptance sampling and testing on ADOT projects shall be set up and available for inspection by ADOT at least 5 days prior to any phase of construction requiring materials acceptance sampling and testing by the laboratory.

As an addendum to their AAP Quality Systems Manual, each approved lab shall submit, for review and acceptance by ADOT, written policy and procedures that address the following issues:

1. How portable or satellite laboratories maintain test method and specification compliance while sampling and testing materials for ADOT projects.

2. How inspection and calibration of sampling and testing equipment at portable or satellite laboratories are performed and documented.

3. How the correlation testing program is performed between the accredited "parent" laboratory and its portable or satellite facilities.

Copies of AMRL and CCRL inspection reports and responses to any deficiencies shall be transmitted to the ADOT Materials Group Quality Assurance Engineer within 30 days of receipt of the inspection report.

Additional information regarding laboratory inspections can be found in Series 900 "Materials Quality Assurance Program" of the ADOT Materials Testing Manual, obtained from Materials Group Quality Assurance Section, or by accessing the Materials Quality Assurance Section website (http://www.dot.state.az.us/about/materials/qa/index.htm).

3.3 Proficiency Testing Criteria is modified to add the following:

The laboratory shall participate in the ADOT Proficiency Sample Program, performing at least those test methods for which ADOT approval has been granted. A written response to any deficiencies shall be submitted to the ADOT Materials Group Quality Assurance Engineer within 30 days of notification. Failure to respond to deficiencies within the 30 day limit will be grounds for revocation of ADOT approval. If a laboratory does not perform testing on 2 consecutive sets of proficiency samples of the same material type, that laboratory will be removed from the ADOT Proficiency Sample Program entirely. If that laboratory is also an ADOT approved laboratory, **it will lose ADOT approval to perform sampling and testing on ADOT projects.**

Copies of AMRL and CCRL proficiency sample test result reports and responses to deficiencies shall be mailed to the ADOT Materials Group Quality Assurance Engineer within 30 days of receipt of the final report.

Additional information regarding the ADOT Proficiency Sample Program can be found in Series 900 "Materials Quality Assurance Program" of the ADOT Materials Testing Manual, obtained from Materials Group Quality Assurance Section, or by accessing the Materials Quality Assurance Section website (http://www.dot.state.az.us/about/materials/qa/index.htm).

3.4 Personnel Qualification Criteria is modified to add the following:

An individual who is **responsible for supervising sampling and testing** shall meet the requirements given in Table 2 for the appropriate field in which sampling and testing is being performed.

Individuals who **perform actual sampling and testing** shall meet the requirements given in Table 3 for the appropriate field in which sampling and testing is being performed, and shall be supervised by an individual who meets the requirements of Table 2 for the appropriate field in which sampling and testing is being performed.

TABLE 1
LABORATORY INSPECTION REQUIREMENTS

TYPE OF LAB	Evaluate personnel, Quality Systems Manual, etc.	Inspect methods & equipment on a regular schedule or as needed	Approve via Acceptance Letter	Include in ADOT Directory of Approved Testing Labs	Performing ***acceptance*** sampling and testing for ADOT: **INSPECT PER PROJECT**	Performing quality control sampling and testing for Contractor: **INSPECT PER PROJECT**
All ADOT Labs Statewide	X	X	X			
AASHTO Accredited Independent Labs within Arizona* which are ADOT approved	X	X	X	X		
Satellite Labs** within Arizona* of an ADOT Approved Lab		X			X	AS REQUESTED BY THE RESIDENT ENGINEER
Satellite Labs** within Arizona* of an out-of-state AASHTO accredited independent Lab which is not ADOT Approved	X	X	X		X	X
Portable Labs*** within Arizona* of an ADOT Approved Lab					X	AS REQUESTED BY THE RESIDENT ENGINEER

* Operating within Arizona, or within 50 miles of Arizona borders.

** Any permanently based lab facility operating under the authority, and AASHTO accreditation of, a main laboratory facility ("parent" lab).

*** Portable lab facility operating under the authority, and AASHTO accreditation of, a main laboratory facility ("parent" lab).

TABLE 2	
SUPERVISOR REQUIREMENTS	
Soils and Aggregate	
Field	Laboratory
Arizona Technical Institute (ATI) "Field" Certification required plus one of (a) through (g) Below.	Arizona Technical Institute (ATI) "Soils/Aggregate" Certification required plus One of (a) through (g) below.
Asphalt Concrete	
Field	Laboratory
Arizona Technical Institute (ATI) "Field" Certification required plus one of (a) through (g) Below.	Arizona Technical Institute (ATI) "Asphalt" Certification required plus one of (a) through (g) below.
Concrete	
American Concrete Institute (ACI) "Concrete Field Testing Technician Grade I" Certification plus one of (a) through (g) below.	

(a) Professional Engineer, registered in the State of Arizona, with one year of highway materials testing experience acceptable to the Department.

(b) Engineer-In-Training, certified by the State of Arizona, with two years of highway materials
testing experience acceptable to the Department.

(c) Obtained a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology, Construction, or related field acceptable to the Department; and with three years of highway materials testing experience acceptable to the Department.

(d) Certified by the National Institute for Certification in Engineering Technologies (NICET) in the Construction Materials Testing field as an Engineering Technician (Level III) or higher in the appropriate subfield in which sampling and testing is being performed.

(e) Certified by NICET in the Transportation Engineering Technology field as an Engineering Technician (Level III) or higher in the Highway Materials subfield.

(f) Certified by NICET as an Engineering Technician, or higher, in Civil Engineering Technology with five years of highway materials testing experience acceptable to the Department.

(g) An individual with eight years of highway materials testing and construction experience acceptable to the Department.

TABLE 3 *TECHNICIAN REQUIREMENTS*	
Soils and Aggregate	
Field	Laboratory
Arizona Technical Institute (ATI) "Field" Certification	Arizona Technical Institute (ATI) "Soils/Aggregate" Certification
Asphalt Concrete	
Field	Laboratory
Arizona Technical Institute (ATI) "Field" Certification	Arizona Technical Institute (ATI) "Asphalt" Certification
Concrete	
American Concrete Institute (ACI) "Concrete Field Testing Technician Grade I" Certification	

Additional information regarding certification requirements can be obtained from ADOT Materials Group Quality Assurance Section, or by accessing the Materials Quality Assurance Section website (http://www.dot.state.az.us/about/materials/qa/index.htm).

3.5 Additional General Criteria is modified to add the following:

Copies of a laboratory's notification to or from AASHTO of any major change in its quality system, capability to perform tests for which it is accredited, laboratory ownership, location (for permanent facilities), managerial personnel, facilities, and any other change which may affect the scope of its accreditation shall be transmitted to the ADOT Materials Group Quality Assurance Engineer within 30 days of when the change occurs.

The ADOT Materials Group Quality Assurance Engineer must be notified within 30 days of changes in supervisory and key technical personnel.

To be eligible to perform referee testing on ADOT projects as an independent testing laboratory, the laboratory must provide proof to the Department of their independent status by submitting a letter to the ADOT Materials Group Quality Assurance Engineer indicating all individuals and corporations which have ownership of the laboratory. In addition, the letter must indicate that each of the owners of the laboratory is devoid of any ownership in contracting firms or materials suppliers who perform work for the Department.

James P. Delton
Assistant State Engineer (Acting)
Materials Group

APPENDIX A-2

CONSTRUCTION ACTIVITY CODING STRUCTURE

ACTIVITY CODE	PLANNING ACTIVITY
EARTHWORK	
601	EARTHWORK Includes removal items
BASE COURSES	
611	BASE COURSES – GENERAL
612	LEAN CONCRETE BASE
SURFACE COURSES – ASPHALT	
621	NEW A.C.
622	RECYCLED A.C.
623	SEAL COATS(Including A.C.F.C.)
SURFACE COURSES – P.C.C.P.	
631	NEW P.C.C.P.
632	P.C.C.P REHABILITATION
STRUCTURES	
641	PIPES
642	CONCRETE BOX STRUCTURES (Includes Structural Plate Pipes)
CONCRETE INCIDENTALS	
651	MAJOR CONCRETE INCIDENTALS Retaining/bin/barrier walls, lined Channel, approach, slab replacements.
652	MINOR CONCRETE INCIDENTALS Catch basins, junction boxes, cattleguards, headwalls, dissipators, curb, curb & gutter, spillways, median & gore paving, sidewalks, driveways, slope paving, manholes, reset manholes, standpipes
NON-CONCRETE INCIDENTALS	
661	GUARDRAIL
662	CONTRACTORS' TRAFFIC CONTROL
663	MISC. INCIDENTALS NON-CONCRETE Fence, bank protection, rip-rap, gabions, etc., RW Markers, survey monuments, water valves, seeding & mulching,bridge rails.
SPECIAL FEATURES	
671	PUMP AREA
672	PUMP HOUSE
673	PERMANENT TRAFFIC DEVICES & ELECTRICAL SYSTEMS Signs, lighting, loop detectors.
674	LANDSCAPE PLANTING
675	LANDSCAPE IRRIGATION
676	PAVEMENT MARKERS Raised and recessed pavement markers, permanent striping.
UNIQUE	
681 – 689	SPECIAL AUTHORIZATION
GENERAL	
691	PROJECT ADMIN. & OFFICE WORK
692	TRAVEL TIME
693	CLAIMS
694	MISCELLANEOUS PROJECT RELATED Short term standby, waiting on contractor or weather, mobilization, equipment maintenance, Facility maintenance, lab Miscellaneous.
695	PARTNERING

NOTE: THESE PERSONNEL FUNCTIONS ARE USED TO FURTHER DEFINE THE ABOVE CODES

1. JOB-SITE MANAGEMENT 2. FIELD OFFICE 3. SURVEY 4. LAB (RES. ENG. & ASSIST.) 5. INSPECTION 6. ON-THE JOB TRAINING (ON PROJECT)

APPENDIX A-3

CLASSIFICATION GUIDELINES FOR CONSTRUCTION TECHNICIANS

CONSTRUCTION TECHNICIAN ENGINEERING WORKER (S1)

THIS IS A TRAINING CLASS

This position is open to first year engineering students and non-construction experience personnel.

Work description:
This is a training class. Incumbents perform engineering work with progressing responsibility as skills and knowledge increase. Incumbents are expected to be moved ahead to entry/journey level position in the area of assignment upon meeting the minimum requirements.

Work conditions:
Depending on the assignment, incumbent may be required to spend some amount of time away from home base or work in rugged terrain.

Supervision:
This class has no supervisory role. Training in the area of assignment will provide the required skills and knowledge for advancement. Direct supervision will be provided through the training period.

Knowledge and skills preferred:

Knowledge of procedures and techniques of surveying, construction standards inspection, quality control and/or materials analysis.

Knowledge of proper construction documentation procedures.

Knowledge of function of this contract.

Knowledge of safety practices and procedures

Responsibility:
For completing work assignment assigned by the supervisor for applying one's self in order to increase and expand knowledge base at elementary working level.

CONSTRUCTION TECHNICIAN ENGINEERING WORKER ADOT EQUIVALENT (S1)
THIS IS A TRAINING CLASS OPEN TO FIRST YEAR ENGINEERING STUDENTS AND NON-CONSTRUCTION EXPERIENCE PERSONNEL.

- TRANSPORTATION ENGINEERING WORKER

NOTE: REFER TO HUMAN RESOURCES POSITION SPECIFICATIONS ATTACHED TO THIS SCOPE OF WORK

STATE OF ARIZONA POSITION SPECIFICATION
Class Title: Transportation Engineering Worker Class Code: 97320
Organizations/Work Settings: Highways Division Class Established: 04/23/84
FLSA: NE Department of Transportation Revised: 01/24/92

Pay Grade: 10

WORK DESCRIPTION:
This is a training class. Appointment to this class may not exceed 24 months. There will be no permanent allocations in this class. Incumbents perform engineering work with progressing responsibility as skills and knowledges increase. Incumbents are expected to be promoted to an entry/journey level position in the area of assignment upon meeting the minimum requirements.

WORK CONDITIONS:
Depending on the assignment, incumbent may be required to spend considerable amount of time away from home base or work in rugged terrain.

SUPERVISION:
This class has no supervisory role. Training in the area of assignment will provide the required skills and knowledges for advancement. Direct supervision will be provided through the training period.

KNOWLEDGES APPLIED:
Knowledge of procedures and techniques of surveying, construction standards, inspection, quality control, and/or materials analysis.
Knowledge of proper construction documentation procedures.
Knowledge of organization and function of the agency.
Knowledge of agency safety practices and procedures.

WORK RESULTS/PRODUCTS:
Completed work assignment applicable to the work unit.

RESPONSIBILITY:
For completing work assignments assigned by the supervisor; for applying one's self in order to increase and expand knowledge base at elementary working level.

AUTHORITY:
Decisions that affect the work assignment as delegated by the supervisor.

SKILLS APPLIED:
Skill in surveying, computation, construction, inspection, and/or materials analysis.
Skill in reading and interpreting highway maps/plans.
Skill in the operation of electronic calculator and performing basic engineering calculations.
Skill in the safe operation and care of various tools and equipment used in the work unit.

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Class Code: 97320

WORK ACTIVITIES (Characteristic Tasks) - MAJOR and minor:

COUNTS PASSING VEHICLES WITH COUNTER, AND FILLS IN REPORT TO ESTABLISH DATA BASE FOR TRAFFIC ENGINEERING.

TOTALS AND SUMMARIZES VEHICLES COUNTED IN HIGHWAY COUNT, BY SIZE, NUMBER OF AXLES, AND OTHER FEATURES.

WEIGHS HEAVY EARTH-MOVING EQUIPMENT TO COMPARES TWO OR MORE FORMS, LISTS, COLUMNS, OR AGGREGATIONS OF FIGURES, USING VISUAL OBSERVATION AND ADDING MACHINE, AND TOTALS BOTH SETS OF FIGURES, NOTING DISCREPANCIES, AND RECHECKING OWN WORK FOR ERRORS.

READS AND STUDIES INSTRUCTIONAL OR INFORMATIONAL MATERIAL IN ORDER TO INCREASE

DETERMINE AMOUNT OF CONSTRUCTION MATERIALS BEING USED; WRITES WEIGHT TICKETS.
COLLECTS WEIGHT TICKETS FROM TRUCK DRIVERS AT DUMPING SITES AND COMPUTES, USING WEIGHT FIGURES, THE AREA TO BE COVERED WHEN MATERIAL IS DUMPED.
USING SIEVE SCALES AND CALCULATOR, ANALYZES CRUSHED AGGREGATES FOR GRADATION REQUIREMENTS BY FINDING THE PERCENTAGE OF GIVEN AGGREGATE SIZES OF MATERIALS SAMPLED.
TAKES SOIL SAMPLES OF CONSTRUCTION PROJECT AND THEN ANALYZES SAMPLES IN FIELD LABORATORY TO DETERMINE COMPACTION AND MOISTURE CONTENT.
OPERATES CORE DRILLING MACHINE TO TAKE MATERIALS SAMPLES FROM ROAD FOR ANALYSIS.
PERFORMS TESTS IN LABORATORY ON SOIL COMPOSITION, SURFACING MATERIAL AGGREGATES, OIL AND WATER CONTENT, EMBANKMENT COMPACTION, PLANT MIX DENSITY, AND OTHER FACTORS AS REQUIRED.
AND EXPAND KNOWLEDGE BASE AT ELEMENTARY WORKING LEVEL IN THE WORK SYSTEM.
PERFORMS ALL TASKS NECESSARY FOR SETTING UP TRAFFIC CONTROL.
DURING THE PERFORMANCE OF SURVEYS, ACTS AS RODMAN; ERECTS SIGNALS AND TARGETS; CLEANS LINE OF OBSTACLES; DRIVES STAKES; ERECTS SURVEY STATIONS.
ERECTS AERIAL PHOTOGRAPHY TARGETS, CLEANS AREA OF OBSTACLES, BRUSH, ETC.
PERFORMS DAILY MAINTENANCE OF VEHICLES; ADDS GAS, WATER, OIL, AND AIR AS NEEDED.
Confers with supervisor on regular basis, discussing work processes, incidents, problems and plans, and receiving advice, counseling, and instruction.
Performs relates work as required.

MINIMUM QUALIFICATIONS:
Ability as determined by the Personnel Division through evaluation of training, experience, and/or examination to perform or learn to perform the outlined duties.
Special Selection Factors:
Ability to lift a minimum of 35 pounds and carry loads over rough terrain. A medical/physical evaluation is required prior to appointment.
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http://www.infoaccess.com/http://www.infoaccess.com/

CONSTRUCTION TECHNICIAN I

IDEAL CANDIDATE SHALL BE ATI OR ACI CERTIFIED – IF THIS CERITIFICATION IS NOT OBTAINED, NO COMPENSATION FOR THIS CLASS WILL BE MADE

Performs a variety of semi skilled activities.

Examples of duties assigned to this classification are:

Rodding, chaining, or setting stakes or pins on a survey crew.

Conducting quality control tests such as soil densities, sieve analysis test, operation scales and inspecting spread operations.

Sampling and transporting produced construction materials from point of application or production to testing laboratory.

Knowledge and skills required:

Knowledge of tools, equipment and vehicles utilized in highway construction.

Knowledge of standard equipment and materials used for the sampling and testing of construction material.

Knowledge of basic mathematics used in the computation of a variety of construction items.

Knowledge of record keeping preparing of documents and reports.

One year experience as an Engineer Worker or equivalent is required.

Please note: Tech I Office / Administrative personnel must have successfully completed CPE and Certified Payroll training.

CONSTRUCTION TECHNICIAN I, ADOT EQUIVALENT (S4)

CANDIDATE SHALL BE ATI OR ACI CERTIFIED OR AN ENGINEERING STUDENT WITH 30 SEMESTER HOURS AND NO HIGHWAY CONSTRUCTION EXPERIENCE.

Performs a variety of semi-skilled activities

- TRANSPORTATION CONSTRUCTION TECHNICIAN I
- TRANSPORTATION MATERIALS TECHNICIAN II

NOTE: REFER TO HUMAN RESOURCES POSITION SPECIFICATIONS ATTACHED TO THIS SCOPE OF WORK

STATE OF ARIZONA POSITION SPECIFICATION
Class Title: Transportation Construction Technician I Class Code: 34396
Organizations/Work Settings: Department of Transportation Class Established: 05/08/92
FLSA: NE Highways Division Revised: 09/07/00

Pay Grade: S4

WORK DESCRIPTION:
Performs a variety of technical highway work of routine difficulty and is normally assigned to more than one area of construction. Examples of duties assigned to this class are: chaining, rodding, and staking on a survey crew; receiving training in the inspection of minor construction items and the operation of survey instruments; conducting quality control tests such as nuclear density and sieve analysis tests and operating scales and inspecting spread operations; and performing introductory level engineering and constructions records maintenance and verification in a construction field office.

WORK CONDITIONS:
Depending on area of assignment, may be exposed to extreme weather conditions, required to travel frequently and/or required to lift heavy materials. Subject to hazards of moving traffic when working in construction areas.

SUPERVISION:
Regularly assigned duties will be performed under general supervision. Close supervision will be provided when performing unfamiliar or advanced level duties in a training capacity.

KNOWLEDGES APPLIED:
Tools, equipment, and vehicles utilized within the area(s) of assignment.
Agency standards, policies, and procedures applicable to the area(s) of assignment.
Approved record keeping and documentation methods, procedures, and techniques.
Basic mathematics used in the computation of a variety of construction items.

WORK RESULTS/PRODUCTS:
Completed work assignments within assigned area(s) of construction; completed training in multiple areas of construction and in advanced level duties within area(s) of assignment; established construction project files; payroll verification.

RESPONSIBILITY:
For timely and accurate completion of assigned projects; proper use, operation, maintenance, and repair of assigned equipment; maintaining records of construction project payrolls, and ensuring accuracy of payroll calculations.

AUTHORITY:
To notify supervisor of construction items or procedures which are not in compliance with specifications. Determine acceptability and mathematical accuracy of payrolls and reports submitted by contractors.

SKILLS APPLIED:
Operating and maintaining a variety of construction survey and quality control equipment.
Operating a variety of office equipment including a calculator.
Reading and interpreting a variety of construction documents, including highway maps and plans.
Safe operation of automotive equipment.
Verbal and written communications.

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WORK ACTIVITIES (Characteristic Tasks) - MAJOR and minor:
SETS SAFETY CONES AND FLAGS IN STREET.

Class Code: 34396
MAINTAINS PROJECT FILES, CONSTRUCTION DOCUMENTS AND

DIRECTS VEHICULAR TRAFFIC AROUND ROAD CONSTRUCTION SITES WITH HAND-HELD FLAG OR SIGNS.
WEIGHS HEAVY EARTH-MOVING EQUIPMENT TO DETERMINE AMOUNTS OF CONSTRUCTION MATERIALS BEING USED; WRITES WEIGHT TICKETS.
COLLECTS WEIGHT TICKETS FROM TRUCK DRIVERS AT DUMPING SITES AND COMPUTES, USING WEIGHT FIGURES, THE AREA TO BE COVERED WHEN MATERIAL IS DUMPED.
USING SIEVE SCALES AND CALCULATOR, ANALYZES CRUSHED AGGREGATES FOR GRADATION REQUIREMENTS BY FINDING THE PERCENTAGE OF GIVEN AGGREGATE SIZES OF MATERIALS SAMPLE.
TAKES SOIL SAMPLES OF CONSTRUCTION PROJECT AND THEN ANALYZES SAMPLES IN FIELD LABORATORY TO DETERMINE COMPACTION AND MOISTURE CONTENT.
PARTICIPATES IN FIELD ENGINEERING SURVEYS, INCLUDING SETTING UP LEVEL AND TRANSIT, TAKING NOTES, HOLDING ROD AND CHAIN.
QUANTITATIVE CONSTRUCTION RECORDS; EXAMINES FORMS AND DOCUMENTS FOR ACCURACY; PERFORMS BASIC MATHEMATICAL CALCULATIONS.
Fills in precise information on a variety of forms, reports, and records, from a variety of highly specific sources.
Fills in time sheets, records of work performed, expense vouchers, vehicle reports, or other routine work reports.
Confers with supervisor on regular basis, discussing work processes, incidents, problems and plans, and receiving advise, counseling, and instruction.
Inspection of minor construction items.
Performs related work as required.

MINIMUM QUALIFICATIONS:
One year of experience using sieve scales and calculator; OR collecting and analyzing soil samples in field laboratory, performing laboratory test on soils or surfacing materials aggregates and related duties; OR performing introductory level engineering and construction documentation; OR assisting in minor construction project inspection. 30 semester hours applicable toward a Bachelors degree in engineering or closely related curriculum may substitute for the required experience.
Special Selection Factors:
A medical/physical evaluation is required prior to appointment.
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STATE OF ARIZONA POSITION SPECIFICATION
Class Title: Transportation Materials Technician II Class Code: 97396
Organizations/Work Settings: Highways Division Class Established: 04/23/84
FLSA: NE Department of Transportation Revised:

Pay Grade: 15 $

WORK DESCRIPTION:
Operates a variety of pavement performance equipment, such as the Mu-Meter, Mays Ride Meter and Dynaflect to collect data on roadway conditions on the State highway system; transports equipment to and from test site; may supervise staff assigned to assist with field tests.
WORK CONDITIONS:
Extensive daily travel; frequent overnight stays away from home base; exposure to those hazards normally associated with working in moving traffic.
SUPERVISION:
Most tasks are performed in the field independent of any direct supervision. Technical advice and assistance will be provided as requested.
KNOWLEDGES APPLIED:
Knowledge of the purpose and proper usage of all pavement performance testing equipment.
Knowledge of inspection methods, procedures and techniques.
Knowledge of the State highway system.
Knowledge of acceptable traffic safety procedures used during testing.

WORK RESULTS/PRODUCTS:
Completed field test data; complete field records and reports.
RESPONSIBILITY:
Scheduling and prioritizing work assignments for self and/or subordinate staff within established time frames; proper care, maintenance and operation of pavement testing equipment.
AUTHORITY:
Determines most efficient routing of equipment within established schedule; decisions affecting scheduling of self and/or subordinate staff; decisions regarding types of traffic control needed.
SKILLS APPLIED:
Skill in the operation, calibration and maintenance of pavement testing equipment.
Skill in analyzing and evaluating the completeness and accuracy of test data.
Skill in visually observing and evaluating roadway conditions.
Skill in coding and reducing field data.

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WORK ACTIVITIES (Characteristic Tasks) - MAJOR and minor:
RECORDS DATA FROM CONTROLLED FIELD OPERATIONS.
OPERATES THE RIDE-METER BY POSITIONING THE INK-PENS, SWITCHING THE MACHINE ON AND INSCRIBING ROAD DESCRIPTIONS ON THE CHART PAPER TO INDICATE THE LOCATION OF THE TESTING.
ASSISTS IN PERFORMING SKID TESTS BY TURNING WATER ON AND OFF AT THE APPROPRIATE TIMES AND MARKING THE TEST LOCATION ON THE PAPER.

Class Code: 97396

SEARCHES FOR AND RETRIEVES INFORMATION FROM FILES, AND RESPONDS TO INFORMATIONAL REQUESTS REQUIRING SOME JUDGMENT OR DISCRETION REGARDING CURRENT AND SPECIFIC BUSINESS OF THE WORK SYSTEM, AS REFLECTED IN THE RECORDS; THIS COMMUNICATION MAY BE BY TELEPHONE OR BY DIRECT PERSONAL CONTACT.
Conducts road survey in various parts of State by driving on roads and noting location, physical features, bridge types, right-of-way and other features.

Performs related work as required.

MINIMUM QUALIFICATIONS:
Two years of experience equivalent to the Transportation Materials Technician I.
Special Selection Factors: None.
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CONSTRUCTION TECHNICIAN II

IDEAL CANDIDATE SHALL BE ATI AND ACI CERTIFIED – IF THIS CERITIFICATION IS NOT OBTAINED, NO COMPENSATION FOR THIS CLASS WILL BE MADE

Performs a variety of skilled activities for field and office including preparing weekly time reports, reviewing certified payrolls and developing the monthly progress estimate, etc.

Examples of duties assigned to this class are:

Operating instruments for a survey for a survey crew, inspecting minor construction items, sampling and inspection of concrete placing operation.

Collect and analyze soil samples of construction materials to determine compaction and moisture content.

Inspection and sampling of all phases of asphaltic concrete paving operation in progress and its conformance to specifications and construction plans. Answers questions and resolves problems.

Inspects construction in progress, to ensure conformance with specifications, agreements, and established requirements.

Keep daily diary of work progress.

Prepares reports on all field inspections, and submits project quantities on a daily basis.

Keep accurate documentation for force accounts and possible claims.

Knowledge and skills required

All knowledge and skills required of lower classification.

Knowledge of currently accepted methods, procedures, and techniques used in highway construction inspection, survey, materials testing, and quality control equipment.

Skill in interpersonal relations, as applied to contact with contractors, representatives of other governmental jurisdictions, and other ADOT staff.

Two years as a Tech I or equivalent is required.

Please note: Tech II Office / Administrative personnel must have successfully completed CPE, Force Accounts, Certified Payroll and PEN training.

CONSTRUCTION TECHNICIAN II, ADOT EQUIVALENT (S5)
CANDIDATE SHALL BE ATI AND ACI CERTIFIED OR AN ENGINEERING STUDENT WITH 60 HOURS AND 3 MONTH HIGHWAY CONSTRUCTION EXPERIENCE.

Performs a variety of highly skilled activities

- TRANSPORTATION CONSTRUCTION TECHNICIAN II
- TRANSPORTATION MATERIALS TECHNICIAN III

NOTE: REFER TO HUMAN RESOURCES POSITION SPECIFICATIONS ATTACHED TO THIS SCOPE OF WORK

STATE OF ARIZONA POSITION SPECIFICATION
Class Title: Transportation Construction Technician II Class Code: 34397
Organizations/Work Settings: Department of Transportation Class Established: 05/08/92
FLSA: NE Highways Division Revised: 09/07/00

Pay Grade: S5

WORK DESCRIPTION:
Performs a variety of journey-level survey, inspection, materials sampling and analysis, and/or project control and administrative support work in a highway construction environment. Examples of duties assigned to this class are: operating instruments for a survey crew; inspecting minor construction items, hot plants, and concrete plants; performing a wide range of the more complicated lab or field quality control tests; maintaining adequate documentation of all assigned activities; performs routine tests on soil, aggregate and other construction materials in a construction lab; performs administrative or advanced engineering and construction records maintenance duties in a construction field office.

WORK CONDITIONS:
Depending on area of assignment, may be exposed to extreme weather conditions, required to travel frequently and/or required to life heavy materials. Subject to hazards of moving traffic when working in construction areas.

SUPERVISION:
Many tasks performed in a highway construction environment are independent of any direct supervision. Close supervision will be provided when performing unfamiliar or advanced level duties in a training capacity.

KNOWLEDGES APPLIED:
Methods, procedures, and techniques used in highway construction project inspection, survey, materials testing, documentation, and contract compliance.
Federal and state statutes and agency standards, policies, and procedures applicable to the area(s) of assignment.
Tools, equipment, and vehicles utilized within the area(s) of assignment.

WORK RESULTS/PRODUCTS:
Completed work assignments within assigned area(s) of construction; completed documentation of all phases of assignments; completed training as prescribed.

RESPONSIBILITY:
For timely and accurate completion of assigned projects; proper use, operation, maintenance, and repair of assigned equipment.

AUTHORITY:
To recommend rejection of materials or workmanship, which are not in compliance with agency specifications; recommend stop work orders for project procedures not in compliance with agency specifications; decide on proper materials testing techniques and procedures in accordance with prescribed standards.

SKILLS APPLIED:
Operating and maintaining a variety of construction survey, materials testing, and quality control equipment.
Reading and interpreting a variety of construction documents, including highway maps and plans, and materials test results.
Interpersonal relations, as applied to contacts with contractors and other agency staff.
Safe operation of automotive equipment.
Operation of a variety of office equipment.
Verbal and written communications.

Approved record keeping and documentation methods, procedures, and techniques.
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WORK ACTIVITIES (Characteristic Tasks) - MAJOR and minor:
WEIGHS, MEASURES, AND PERFORMS ELEMENTARY TEST ON DRILL CORE MATERIALS AND RECORDS RESULTS.
INSPECTS HIGHWAY CONSTRUCTION ON AN ONGOING BASIS TO ASSURE COMPLIANCE WITH CONTRACT AND STATE AND FEDERAL STANDARDS; INSPECTIONS AND EXAMINATIONS ARE MADE OF MATERIALS, SURFACE CONDITION, PROPER TRACKING, STRUCTURAL FEATURES, AND OTHER RELEVANT FACTORS.
PERFORMS TESTS IN LABORATORY ON SOILS COMPOSITION, SURFACING MATERIAL AGGREGATES, OIL AND WATER CONTENT, EMBANKMENT COMPACTION, PLANT MIX DENSITY, AND OTHER FACTORS AS REQUIRED.
USING SURVEY INSTRUMENTS AND EQUIPMENT, PERFORMS LOCATION, STRATA, TOPOGRAPHIC, BOUNDARY, DRAINAGE, AND OTHER MEASUREMENTS AS REQUIRED IN THE CONSTRUCTION OF HIGHWAY OR OTHER CONSTRUCTION PROJECTS.
INTEGRATED INTO WORK ROUTINE, OR IN TIME SET ASIDE FOR TRAINING, ACQUIRES KNOWLEDGE AND SKILLS NEEDED FOR ADVANCEMENT TO OR FOR EFFECTIVE PERFORMANCE AS JOURNEYMAN WORKER OR SKILLED TECHNICIAN LEVEL IN THE WORK SYSTEM.
CONSULTS MANUAL, RULEBOOK, CODES, OR REGULATIONS IN ORDER TO FIND EXACT REQUIRED COURSE OF ACTION, DETERMINATION, OR AUTHORIZATION.

Class Code: 34397

MAINTAINS HIGHWAY CONSTRUCTION CONTRACT DIARIES, PROGRESS REPORTS, ROYALTY RECORDS, DOCUMENTATION OF PAY QUANTITIES, AND FINAL SUMMARIES OF ALL RELEVANT DATA PERTAINING TO HIGHWAY CONSTRUCTION PROJECTS.
Checks or verifies calculations on quantity summaries for highway construction bid items.
Examines and verifies numeric data and specifications on source documents by recalculating computations, using geometry or trigonometry.
Compares two or more forms, lists, columns, or aggregation of figures, using visual observation and adding machine and totals both sets of figures, noting discrepancies and rechecking own work for errors.
Calculates expenses, cumulative charges, receipts, or other fiscal data for daily ad other periodic records; changes computations if necessary.
Examines payroll documents from public contractors to assure completeness, accuracy and compliance with contract.
Performs related work as required.

MINIMUM QUALIFICATIONS:
Two years of technical highway work, such as chaining, rodding and staking on a survey crew, operating survey equipment; OR conducting quality control tests; OR performing engineering and construction records maintenance and verification or related duties; OR assisting in inspecting highway construction

projects, material laydown and concrete placement. 60 semester hours applicable towards a Bachelor degree in Engineering or closely relates curriculum may substitute for one year of the required experience.
Special Selection Factors:
A medical/physical evaluation is required prior to appointment.
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STATE OF ARIZONA POSITION SPECIFICATION

Class Title: Transportation Materials Technician III Class Code: 97397
Organizations/Work Settings: Highways Division Class Established: 04/23/84
FLSA: NE Department of Transportation Revised:

Pay Grade: 16 $

WORK DESCRIPTION:
Supervises and directs the activities of staff involved in maintaining project status files and updating pavement management information; codes pavement management data for computer input; reviews and evaluates computer output; may conduct field tests as required.

WORK CONDITIONS:
No unusual work conditions.

SUPERVISION:
Works under the general direction of a Transportation Engineer - Team Leader and exercises some independent judgment within established program parameters and guidelines.

KNOWLEDGES APPLIED:
Knowledge of methods, procedures and techniques used in reducing and interpreting pavement management data.
Knowledge of computer entry methods, procedures and techniques.
Knowledge of the Highway Surface Condition rating system.
Knowledge of computer programs available for use in the work unit.

WORK RESULTS/PRODUCTS:
Complete, up-to-date pavement history files; completed reports; pavement management data entered into computer.

RESPONSIBILITY:
Timely and accurate completion of assigned work projects; scheduling and assigning work projects for self and subordinate staff.

AUTHORITY:
Approve or disapprove computer output; approve or disapprove work assignments completed by subordinate staff.

SKILLS APPLIED:
Skill in reducing and coding pavement management system data.
Skill in the operation of a variety of pavement performance test equipment.
Skill in analyzing and evaluating a variety of technical data.
Skill in interpersonal relations, as applied to contacts with other agency staff.

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Class Code: 97397

WORK ACTIVITIES (Characteristic Tasks) - MAJOR and minor:

INSTRUCTS, GUIDES AND COUNSELS SUBORDINATE-LEVEL WORKERS IN CARRYING OUT A VARIETY OF TASKS.

REVIEWS, VERIFIES OR INSPECTS WORK OF SUBORDINATE-LEVEL WORKERS, FOR QUALITY CONTROL.

CONDUCTS ROAD SURVEY IN VARIOUS PARTS OF STATE BY DRIVING ON ROADS AND NOTING LOCATION, PHYSICAL FEATURES, BRIDGE TYPES, RIGHT-OF-WAY AND OTHER FEATURES.

SORTS, SEPARATES AND CODES DATA IN ACCORDANCE WITH ESTABLISHED METHODS AND FORMAT.

ENCODES DATA FOR COMPUTER USE IN ORDER TO PRODUCE ENGINEERING REPORTS.

CORRECTS ERRORS IN COMPUTER OUTPUT DATA, AND RESUBMITS TO OPERATIONS SUPERVISOR FOR A RERUN.

SEARCHES FOR AND RETRIEVES INFORMATION FROM FILES, AND RESPONDS TO INFORMATIONAL REQUESTS REQUIRING SOME JUDGMENT OR DISCRETION REGARDING CURRENT AND SPECIFIC BUSINESS OF THE WORK SYSTEM, AS REFLECTED IN THE RECORDS; THIS COMMUNICATION MAY BE BY TELEPHONE OR BY DIRECT PERSONAL CONTACT.

RECORDS DATA FROM CONTROLLED FIELD OPERATIONS.

Assists in performing skid tests by turning water on and off at the appropriate times and marking the test location on the paper.

Operates the mu-meter by positioning the ink-pens, switching the machine on and inscribing road descriptions on the chart paper to indicate the location of the testing.

Performs related work as required.